THE LANCET.

LECTURES

ON THE

ANATOMY, PHYSIOLOGY, AND DISEASES OF THE EYE.

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Lecture XIII.

Gonorrhœal Ophthalmia—Rheumatic Ophthalmia.

Gentlemen,

The third form of purulent ophthalmia which I mentioned to you, was the gonorrhœal, which is an inflammation of the mucous membrane of the eye, attended with a profuse discharge of fluid, which cannot be distinguished from that which takes place from the inflamed urethra in gonorrhœa. It is an affection occurring in some kind of connection with gonorrhœa. It is the most acute, violent, and rapidly destructive form of inflammation to which the eye is subject, and fortunately it is very rare. It destroys the eye very suddenly, and it often happens that the eye is irreparably injured, before the patient applies to a surgeon for relief.

Symptoms.—Gonorrhœal ophthalmia presents all the characters of purulent inflammation in their most violent form; there is the greatest degree of vascular congestion; the most intense and general external redness; excessive tumefaction of the conjunctiva; great chemosis and profuse purulent discharge; severe and agonizing pain in the globe, orbit, and head. These are the circumstances which characterize a complaint that is speedily attended with the most destructive consequences to the organ, producing sloughing of the entire cornea, evacuation of the humours, and collapse of the globe; or, if such extensive injury be not produced, large ulcerations, or opacities of the cornea, or partial ulceration and prolapsus of the iris. Small ulcers, and inconsiderable opacities are among the most favourable terminations of this distressing complaint. The ultimate effects are evacuation and collapse of the globe, staphyloma, general or partial, lencoma, with synechia anterior, or slighter corneal opacities.

Diagnosis.—There is no strongly marked distinction between this affection and common purulent ophthalmia. Gonorrhœal ophthalmia, indeed, is purulent inflammation of the most violent kind, and its peculiar nature is indicated by the concomitant circumstances; that is, by the preceding or existing gonorrhœa. It attacks only one eye in general, whereas purulent ophthalmia most frequently attacks both; but this is by no means an infallible distinction, since ordinary purulent ophthalmia may be confined to one eye, and the gonorrhœal form of disease often attacks the second eye after a short lapse of time.

I mentioned to you the remark of Dr. Vetch on this subject, that you might see a thousand cases of purulent ophthalmia, without observing a single instance of its affecting only one eye. The symptoms are all very severe in gonorrhœal ophthalmia, and the destruction of the cornea is very rapid. We seldom see the disease in the lower classes in time to save the cornea entirely; as the interval is so short between the origin of the complaint and its complete development. The symptoms are so much like those of purulent ophthalmia, that many persons have considered the affection as exactly the same in both instances. This I can by no means admit; the violence of the symptoms, the rapid progress of the complaint, and the short time in which it produces destructive effects, evidently characterize it. In purulent ophthalmia, the disease begins in the mucous lining of the palpebræ, whilst, in gonorrhœal inflammation, it attacks the whole mucous membrane at once. But the most obvious and infallible point of diagnosis, will be the existence at the same time, or the previous existence,

of the gonorrhœal discharge from the urethra.

Prognosis.—You will readily understand, that in such very severe inflammation, in which serious disorganization is so speedily effected, the prognosis must be of a very unfavourable kind. If you see a case quite in the commencement, and have an opportunity of instituting a suitable treatment immediately, you may prevent any ill consequences. This, however, is not quite certain; but, if that period be allowed to pass by, loss or serious imperfection of vision will inevitably ensue.

Causes.—In considering the causes of gonorrhœal ophthalmia, we have to inquire what is the nature of the connection existing between this inflammation of the eye and gonorrhœa? Whether the affection of the eye is produced by any application of gonorrhœal matter to it? Whether it is producible by the application of gonorrhœal matter secreted from the same individual, or secreted from another individual; or whether it is the effect, not of any immediate application of gonorrhœal matter to the eye, but of that peculiar transference of diseased action which is called metastasis? Such are the points which we have to investigate, but which we are not in possession of facts sufficient to decide. There is another previous question, namely, whether there is any connection at all between the disease of the urethra and the disease of the eye? Mr. Briggs has introduced, in his translation of the last edition of Scarpa, a long note by Mr. Pearson, in which the latter very learned and able surgeon broadly states, that there is no connection whatever between them. He says, that in many thousand cases of gonorrhœa, he has not seen one instance of inflammation of the eye that could be ascribed to the gonorrhœa. This negative testimony would have great weight, from the extensive experience and sound judgment of that justly eminent individual, but unfortunately for his authority on these subjects, Mr. Pearson goes on to state, that he has seen no particular form of ophthalmic affection connected with venereal disease, thus proving himself unacquainted with syphilitic iritis. If so common and well marked an affection as that could escape his notice, we need not be surprised that he should not have become acquainted with gonorrhœal ophthalmia. That there is a connection of some kind or other between the gonorrhœa and the disease of the eye, is, I think, clearly proved by the violence of the disease, which, in spite of all our efforts, frequently leads to the destruction of the organ: this cannot be said of simple purulent ophthalmia, for I never saw a case of that affection which might not be arrested by suitable measures.

Respecting the question whether gonorrhœal inflammation of the eye can be produced by the application of gonorrhœal matter, that is a doubtful point; and as we cannot make direct experiments to ascertain it, we cannot solve the question. It is stated, incidentally, by Beer, and in the same sort of way by Scarpa, that if gonorrhœal matter be applied to the eye, it only excites a slight degree of inflammation there. These statements are not accompanied by any narratives of cases, or other detailed illustrations, so that we do not know on what kind of proof the assertions rest, or how the application of the morbid secretion to the eye was ascertained. Dr. Vetch took some pains in making experiments upon this subject; he took matter from the eyes of patients labouring under purulent ophthalmia and applied it to the urethra of the same individuals, and he found no disease excited by it; but, when he applied the same matter to the urethra of a different individual, it excited a very virulent gonorrhœa. He infers, from these experiments, that the gonorrhœal matter taken from the urethra and applied to the eye of the same individual would excite no inflammation of the eye. Now I will admit that this inference is probable, but not legitimately correct; because, although the purulent secretion of the eye does not affect the urethra, we cannot say that the gonorrhœal secretion of the urethra will not affect the eye. We do not find, in all cases, that these morbid influences are reciprocal; take for example the inflammation of the urethra and the inflammation of the testicle; the former may produce the latter, but the latter seldom or never produces the first. Dr. Vetch mentions, that an hospital assistant, named Smith, applied gonorrhœal matter to his own eyes with impunity; but he has omitted to specify whether the matter thus applied was secreted from his own urethra or from that of another. Thus we are led to infer, that the gonorrhœal inflammation of the eye is not produced by direct application of gonorrhœal matter. Although I admit that this inference, drawn from the experiments before mentioned, is not correctly legitimate, I am induced to agree in the opinion, and I should say, that it is probable that the direct application of the morbid secretion is not the cause of gonorrhœal ophthalmia. When we consider how the gonorrhœal matter is diffused over the linen of patients, both males and

females; how often it must get upon the fingers, and the great inattention to cleanliness among the lower classes, we cannot help concluding, that gonorrhœal matter must be frequently applied to the eye; yet gonorrhœal ophthalmia is comparatively rare. I am justified in saying that it is a rare occurrence, since out of the number of patients annually coming here, amounting to near four thousand, we meet with very few cases of gonorrhœal ophthalmia. In some instances of gonorrhœal ophthalmia, it has been said that the patients have washed their eyes with their own urine; this has been mentioned by Mr. Foot, but even that is no conclusive proof. This is a practice not uncommon among the lower classes of society as a remedy for sore eyes, as they call all cases of ophthalmic disease. One circumstance, almost irreconcilable to the idea of the application of gonorrhœal matter being the cause of this affection is, that the inflammation of the eye called gonorrhœal, is confined to males, and never occurs in females. I have never seen an instance myself in which it has happened to a female; but I have seen a great many men suffering from this complaint. Now if it happened from the direct communication of matter, we cannot expect that they would, on all occasions, escape, especially happening as gonorrhœa so frequently does, and that among those persons not the most attentive to cleanliness. We may say then, at least, that it is very doubtful whether the application of gonorrhœal matter to the eye does produce the inflammation in question.

Then we come to the other question—whether it is owing to that transference of morbid action from one part to another, called the *metastasis* of disease? That is, whether the disease takes place in the eye in the same way as we observe disease attack certain parts of the body in succession in gout and rheumatism? We know that patients labouring under gout will sometimes have the extremities recover, and some internal parts become affected, as the head, the heart, and the stomach. Beer, and most of the Continental writers, assert, that when gonorrhœal ophthalmia comes on, the discharge from the urethra is suppressed, and they court the return of the discharge to the urethra by the application of warm and stimulating fomentations to the part; but in the cases which have come under my observation, the discharge has not been suppressed; it has, in some instances, been lessened, and in others not. Perhaps this metastasis is a circumstance dependent upon some peculiarity of constitution in the individual in whom it takes place. There is in rheumatism a simultaneous or successive affection of various parts of the body, and the eye may suffer as well as other parts.

A question has arisen whether the discharge from the eye is infectious or not. Beer says that it is; he states it rather as if he supposed it must be so, and does not produce any facts to show that it is so. That, however, is a point not yet ascertained.

Treatment. — In treating this affection, we must adopt the most bold antiphlogistic measures, if we see the eye previous to its having suffered any essential injury. In the first instance it will be essential to bleed freely from the arm, and afterwards to take blood locally by cupping, or by a large number of leeches placed around the eye, and these measures must be repeated at short intervals until you have relieved the vascular congestion, and removed the attendant pain. Together with this free abstraction of blood, you must follow up the other parts of the antiphlogistic treatment. After the inflammation has been reduced, the same treatment by tonics and astringents must be adopted as in the purulent ophthalmia, which I have before described; but you must be very cautious in the manner of doing this, as the inflammation is very easily re-produced, and if any pain or heat should be occasioned in the organ you must drop the astringent treatment immediately and again have recourse to the antiphlogistic. This active treatment should be adopted as early and be followed up as perseveringly as possible; and you may by doing so succeed in saving the organ. I can mention to you a case which shows how stubborn and almost uncontrollable this disease sometimes is. A gentleman who was attending the practice of this Infirmary called on me one Sunday morning, requesting me to look at his eye; he said he was afraid he had an attack of purulent inflammation coming on. He had been kept awake through the night by severe pain in the eye, and ascribed it to having got some purulent secretion into his eye when syringing the eye of an infant. I perceived a slight turgescence of the vessels, and that there was an œdematous swelling of the palpebræ, and incipient chemosis, although the vessels of the conjunctiva were not much distended, and the membrane could hardly be said to be preternaturally red. Now here was a case in which the affection was observed very early, and such as might be expected to yield to vigorous antiphlogistic treatment. I con-

sidered it a case of purulent ophthalmia, and advised him to be bled to syncope, to take an active dose of calomel and jalap, and afterwards to keep up nausea and vomiting by taking freely a solution of the tartarized antimony. All these means were adopted in their fullest extent; and, if any measures could put a stop to inflammatory excitement, you would expect that these should; but in the evening the symptoms had not yielded in the least. I bled him again, yet he passed the night in as much pain as the preceding; the conjunctiva got red, the lids swollen, and the pain severe; he was bled again, and had leeches applied a great many times; blisters were freely employed, and he took large quantities of purgative medicine. All these means, however, proved inefficient; the inflammation went on; opacity of the cornea took place, and ulceration, which was followed by dense leucoma of the entire cornea, and large adhesion of the superior palpebra to the cornea. I commenced the treatment of this case under the idea that it was purulent ophthalmia; but in the evening he mentioned to me that he had a gonorrhœa, and that circumstance, together with the inflammation attending only one eye, and its uncontrollable rapidity, left no doubt in my mind that it was a case of gonorrhœal inflammation. All cases are not so severe; but not long after this occurred, I saw another instance of similar inflammation in a young man, who had been treated very actively for two or three days before I saw him, and yet after all the eye was lost. Two cases of gonorrhœal inflammation presented themselves here during the last year, and both completely recovered, although partial ulceration of the cornea took place in each. They recovered under the employment of very active antiphlogistic treatment. In some instances, although partial opacity may take place, the patients will recover pretty good vision. If the inflammation attacks both eyes in succession, you may generally succeed in saving the second, in which the inflammation is not so violent; but that is not always the case: I have seen several instances, in which both eyes have been lost by this inflammation.

I should mention to you that Beer and Richter advise a different course of proceeding; under the impression that the suppression of the urethral discharge is an essential circumstance in the production of the disease, they recommend you to try to reproduce the discharge from the urethra; and to do this they advise you to get a bougie smeared with gonorrhœal matter and to introduce it into the urethra; or that the bougie should be smeared with some stimulating ointment, and that the urethra be rubbed externally with stimulating ointments, the penis and perinæum being fomented with hot cloths, and then covered with warm poultices. Now, for my own part, I do not consider that the suppression of the discharge has any thing to do with the production of this complaint; and I therefore consider that this treatment is inappropriate. But it is besides an absurd treatment, even admitting that the suppression was a matter of importance, since the eye would be destroyed before the discharge could be reproduced.

Rheumatic Inflammation of the Eye.—Although many points in the pathology of gout and rheumatism are obscure, we know that these diseases particularly affect the fibrous structures, such as enter into the composition of joints, and are found in their neighbourhood, and the synovial membranes. Now when any morbid affection is the result of a particular constitutional disposition, we find that there is a tendency in all the textures of the same kind to be affected under certain circumstances; and accordingly those textures of the eye which resemble the fibrous, as the sclerotic and cornea, together with the closely connected iris, and the mucous membrane of the eye, which is analogous to the synovial membrane of the joints, are liable to take on diseased actions under the same state of constitution which gives rise to rheumatic inflammation of similar textures in other parts of the body. The urethra often participates in the affection; and a discharge like that of gonorrhœa takes place from the canal. The joints, the eyes and the urethra may suffer together, or in succession.

Symptoms.—The conjunctival inflammation is generally of a purulent character. You can hardly distinguish it from common purulent ophthalmia in its commencement, but the sclerotic becomes involved in its progress. I was consulted by a gentleman for severe purulent inflammation of one eye, with chemosis, and dulness of the cornea: the organ was in great danger. The other eye was slightly affected. I advised him to be let blood from the arm, to be cupped in the temple, and to adopt a strictly antiphlogistic treatment. The eye had almost recovered, when he said he was afraid he was going to have an attack of rheumatism, and in a day or two after, he had swelling of one foot; the

other foot and the hand swelled, with slight redness, and great pain. The knees were afterwards attacked, the synovial membrane being inflamed, and he had pains in his back and hips; this affection of the joints continued some time and then began to decline. I said to him that it was not unlikely that he would have inflamed eyes again; and this actually happened in a few days, when they became so bad as to require cupping and leeching, and, on inquiry, I now found that he had had discharge from the urethra for many months. As the eyes became better the rheumatic disorder grew worse, and the patient was almost disheartened by such repeated attacks, and indeed began to despair of ever recovering his health. He went to Brighton and tried the warm salt-water bath without much benefit, and he tried a great variety of other means. At the end of two years he was still suffering from rheumatism, but had experienced no further attacks in the eyes. This interesting case serves to show how the similar textures of the body alternately and successively are liable to be attacked by inflammation, when there is any peculiar constitutional tendency to disease. Mr. Brodie's valuable work on Diseases of the Joints contains some interesting analogous cases in the chapter on inflammation of the synovial membrane.

Most commonly the sclerotic and iris are principally affected in arthritic inflammation, although the conjunctiva, as in the case I have just mentioned, occasionally suffers. Dr. Vetch has recorded some facts of this kind in his work on Diseases of the Eye. They terminated, after serious inflammation, in adhesion of the pupillary margin and contractions of the aperture.

Within the last two or three years many cases have come under my observation. One of them was that of a gentleman about twenty years of age, engaged in the study of the law, who consulted me for a serious inflammatory attack of both eyes. The sclerotic coat was inflamed, the cornea dull; the iris was slightly changed in colour, and motionless; the pupil contracted; there was dimness of vision and great intolerance of light. It was necessary to take blood by cupping and leeches several times, and to treat him pretty actively in other respects for some days, before the inflammation was decidedly lessened, and then the joints began to be affected. This led me to inquire whether he had lately been the subject of gonorrhœa, and it turned out that he had gleet at the time. The complaint was lingering and tedious, with temporary improvements and relapses; but the symptoms of the inflammation in the eyes and the diseases of the joints disappeared together, after spending some weeks in the country, and he had no return of the former.

I attended a gentleman, who came to me for what he considered a gonorrhœal discharge; he was a married man, and acknowledged that he had incurred the risk of infection, and he had the usual symptoms of gonorrhœa well marked. One day he called on me and said, that he had a pain in his foot, that he could not at all account for; the pain got worse, the foot began to swell; he could not go about, and there was sufficient inflammation to require cupping and leeching, and subsequently he had an affection of the opposite knee (inflammation of the synovial membrane with effusion into the joint) and of one hip, and at the same time a decided attack of inflammation of the sclerotic coat and iris, with dulness of the cornea and dim vision. These were treated by antiphlogistic measures and relieved, when the gonorrhœal discharge and inflammation of the foot were aggravated. As these were leaving him, I observed, I should not be surprised if he had another attack of inflammation of his eyes, and in three or four days after when I saw him, he said my prophesy had been fulfilled; he had a serious relapse of inflammation in the eyes, accompanied with considerable dimness of vision, and requiring cupping, leeching, and blistering, and very active treatment to remove. The inflammation, however, remained in his foot, and I advised him to go to the sea-side and use the warm sea bath, which he did, and there slowly got better, but his health and strength were not completely restored at the end of a year.

The lecturer mentioned the particulars of another case which occurred in St. Bartholomew's Hospital, in which the inflammation of the sclerotica and iris, the intolerance of light and dimness of vision were very considerable, and rheumatic pains were present; active measures were necessary to remove the inflammation of the eyes, and they got quite well. In three or four weeks' time he came in again under the care of Mr. Abernethy; he said that he had, soon after he left the Hospital, another attack of rheumatism, and that as the rheumatism went away, one of his eyes became inflamed. Mr. L. was asked by one of the pupils to see him, and he had then acute iritis, the anterior chamber being almost filled with lymph, and vision gone. He thought the case hopeless, but recom-

mended an active antiphlogistic treatment, and afterwards the free use of mercury, under which the inflammation ceased, the lymph was absorbed and sight restored.

These are two forms of ophthalmic inflammation occurring in conjunction with rheumatic affections, and apparently owing their origin to peculiar states of the constitution. A third form, in which rheumatic ophthalmia occurs, is that in which the affection is confined to the sclerotica, and not extending to the iris or cornea. I can mention to you a case in which this kind of inflammation occurred in a very marked manner. A gentleman consulted me, labouring under severe rheumatic affection of one foot and knee, and one hand, with pains in the back, and great constitutional excitement; the parts were swollen, slightly red, and very painful; they were in the state commonly called rheumatic gout. Active antiphlogistic treatment, followed by the use of colchicum and other means, removed the rheumatic affection, and he considered himself nearly well. I called on him one day to inquire after his health, when he said there was something the matter with his eyes, but he could not tell exactly what, and wished me to examine them. I looked at them hastily, but did not notice any particular appearance; however, the next time I called I found his eyes very much worse; he had increased sensibility to light, but no redness of the conjunctiva; the whole of the sclerotic had a livid reddish and mottled appearance, which might be called dull or almost dirty in comparison with the red colour which is seen in the acute form of common inflammation. Its vessels were partially distended; the redness terminated short of the cornea, so that there was a distinct white rim all around the latter, as if it had been drawn with a compass. Such were the external appearances of the organ. He felt no pain in the eye when kept quiet and protected from strong lights; but exertion of the organ, particularly under strong lights, brought on uneasiness. This state of the sclerotica lasted, in a greater or less degree, for three or four months, and I was very apprehensive that some serious mischief would ensue to the organ. The affection, however, remained confined to that tunic, evincing the tediousness and unyielding character which characterise disease when seated in these firm structures. Leeches, cupping, and blistering were employed, Plummer's pill was given daily or twice a day, for about three months. Bark was tried without any advantage. Although the affection was of an obstinate kind, its duration was prolonged by the patient being obliged to use the eye more than was advisable.

Treatment.—In the affections just described, our treatment must be regulated according to the degree of inflammation; the great object being to lessen that, and to guard against its effects. Perhaps you may not deem it necessary to proceed quite so actively as in other cases; leeches or cupping are sufficient as means of direct depletion; the use of blisters is advantageous.

If the inflammation of the iris becomes considerable and alarming, it may require that treatment by mercury, which I shall have hereafter to describe. The milder forms of the affection may not demand a decided mercurial treatment, but rather such as is called alterative; and no medicine can be better for this purpose than the Plummer's pill. Take blood, by cupping, from the temples, or by leeches; apply blisters, and keep them discharging by the use of the savine cerate; evacuate the bowels effectually, give Plummer's pill regularly every night, or night and morning; regulate the diet, and let the patient breathe pure air. This course will in general soon remove the complaint, or, at all events, it will check its progress. If there is reason to apprehend that serious mischief may occur to the structure of the iris or capsule, you must immediately have recourse to a more decided use of mercury.

I must observe to you that foreign writers, particularly the Germans, lay great stress on that peculiar state of constitution, which gives rise to these affections, and on the employment of such measures as they consider are well calculated to remove that state, rather than on the employment of means strictly antiphlogistic; and they enumerate a great variety of remedies, which they suppose to be *antiarthritic*, such as decoctions of bark, and other tonics, guaiacum, antimony, Dover's powder, &c. In the first place, it is very doubtful whether these remedies have any claim to be considered as specifically antiarthritic; and we know from experience that such a condition of the system is very difficult to remove. In the second place, the exclusive reliance on such measures, appears to me to be at variance with the safety of the organ, when it is labouring under active inflammation. Perhaps the mild antiphlogistic treatment which the eye may require, is the most effectual to remove that state of the system called arthritic, or rheumatic; since we know that in many such cases, there is a condition of general plethora, or of local in-

flammation. One remedy introduced of late into practice, does appear to possess decided antiarthritic influence; this is the *colchicum*, and as it has been found useful in removing, or in assisting to remove, gouty inflammations from the joints, it may be made, perhaps, a useful auxiliary in these affections of the eye. I have not, however, seen it employed in such cases.

LECTURES

ON THE

THEORY AND PRACTICE OF PHYSIC,

By DR. CLUTTERBUCK.

Theatre, General Dispensary, Aldersgate-street.

Lecture XIX.

Gentlemen,

I spoke in my last Lecture of the terminations of inflammation, when the various ways in which inflammation may terminate, without inducing alteration of structure, were pointed out. It now remains for me to enumerate those terminations of inflammation that are attended with change of structure. Now these are usually said to be three in number; namely, *induration*, *suppuration*, and *gangrene*.

Induration has been sometimes, though improperly, called *schirrus*. Thus when the liver is indurated by inflammation, it is said to be in a *scirrhous* state. This term is objectionable, as having been employed in a very different sense, namely, to denote the early stage of *carcinoma* or *cancer*, which is to be considered as a *specific* kind of inflammation; while the induration, or hardening here alluded to, is of a very simple nature and easily understood. Mere induration arises from the adhesions that take place in the cellular texture of the part, and also from the deposition of coagulable lymph in its interstices: in most cases, there is an actual enlargement or increased growth of the part. Now it is obvious that this must interfere, more or less, with the function of the part, by impeding freedom of motion; as in cases where the cellular membrane in the neighbourhood of joints is thus affected. By the deposition of new matter also canals become straitened, and more or less obstructed, while from the same cause the compound organs, as the liver, lungs, and brain, are liable to have their function impaired. Thus it is, that after inflammation has existed for any time in those organs, they may be left ever after in a state that renders them incapable of performing healthy action.

In many cases, the induration slowly and gradually disappears, the matters deposited being again absorbed; and it is probable that the adhering surfaces are sometimes again separated, by an absorption of the intermediate coagulable lymph.

The *second* mode of termination with alteration of structure, is that by *suppuration*. By this is meant the secretion or formation of what is called *pus*, or purulent matter, in the substance, or on the surface of the inflamed part. Inflammation has a strong tendency to end in suppuration, when it affects the cellular membrane any where, or the parenchymatous substance of organs, such as the lungs, the liver, or the brain; and whenever inflammation continues long in these structures, such a termination is to be apprehended. In the brain, however, such an occurrence is comparatively rare, and it is seldom found, unless in mild and long-protracted cases. The more acute forms of inflammation in this organ, destroy life too quickly to allow of such a mode of termination.

When once suppuration has begun, it is seldom possible to put a stop to it, and all attempts to do so, serve only to retard the process, and to impede restoration afterwards. Hence it is desirable to know when it is about to take place, as our treatment will then be different. If, for example, we have reason to suppose that suppuration in the lungs, or liver, is about to occur, we in general abstain from further bloodletting; knowing that this remedy will only retard the process, and perhaps render it irregular.

Now there are certain signs which indicate that suppuration is about to take place. These are the following:—

1. *The duration and violence of the inflammation.* When inflammation is very violent, or has gone on for some time, especially in parts that we know to be prone to suppuration, we are naturally led to suspect that it will terminate in this way.

2. *Abatement of pain*, without a corresponding relief of the other symptoms. Thus in inflammation of the lungs, if the pain should decline considerably, but the difficulty of respiration still continue, it

would afford some ground for believing that suppuration had commenced.

3. The pain becoming of a more *throbbing* kind; and,

4. The occurrence of *irregular chilly fits* is a strong sign of approaching suppuration. These are not *regular cold fits*, like those of intermitting fever, but they take place *irregularly*.

5. If the part affected be within sight, there will be observed a diminution of swelling in the surrounding parts; by which the inflamed part becomes more prominent. This state is called by surgeons *pointing*, and arises chiefly from the subsidence of the inflammation in the surrounding parts. In internal suppurations we of course cannot see this, but may sometimes infer it. In this way, in inflammation of the lungs, the breathing might become somewhat easier, from the subsidence of the swelling in the parts immediately surrounding the abscess.

The *period* of suppuration is very various, and is influenced by several circumstances; as, the violence of the inflammation, and the state of general health; inflammation proceeds more actively in vigorous subjects, and hence suppuration sooner takes place in them. The age of the patient has also a considerable influence; in children, suppuration takes place sooner than in adults; and when seated on the trunk, than on the extremities.

When purulent matter is formed in the substance of a part, we do not find that it spreads into the surrounding cellular substance. This is guarded against by the adhesion of the surrounding cells, which thus limits the extent of suppuration, and confines the purulent fluid.

The purulent matter collected is generally discharged from the body, at a part where it can be done without danger. Thus, if inflammation of the liver should terminate in suppuration, the purulent fluid hardly ever escapes into the cavity of the abdomen; as by exciting inflammation of the peritoneum, it would in all probability prove fatal. It either penetrates the intestine, which is previously united with the liver by adhesion; or it makes its way outwards by absorption, till it reaches the skin, for the purpose of having a safe outlet; thus affording a striking proof of what has been called the *vis conservatrix naturæ*, or the tendency of nature to remedy her own ills.

The matter formed in a part is sometimes absorbed again, and this has been supposed to give rise to what is called *hectic fever*. There is, however, no sufficient ground for this opinion. Large collections of matter frequently take place, without *hectic fever* supervening; and, on the other hand, there may be *hectic fever* without suppuration; for the most decided hectic symptoms often arise from merely turberculated lungs.

The *third* mode by which inflammation terminates with alteration of structure, is that by *gangrene*, where both the life and texture of the part are destroyed. The part dies in consequence of the inflammation, and quickly undergoes decomposition, or putrefaction. The term *sphacelus* or mortification, is commonly applied to the more advanced stage of gangrene when decomposition has taken place.

Gangrene, when taking place externally, is known by the livid colour of the part, occasioned by the blood stagnating in the vessels; by the loss of feeling, and consequently cessation of pain; by the declining heat of the part; and by a loss of natural elasticity, producing an œdematous or dough-like feel. The part becomes *emphysematous*, that is, a crepitus or crackling is felt upon pressure, and which is owing to the escape of air into the interstices of the part, the consequence of putrefaction. After a time the cuticle rises into a vesicle, with yellow or purple serum effused beneath it. The texture altogether is destroyed, so that the vessels of the part cannot be injected: the putrefaction in this case, is modified by the influence of life, so that the gases which escape are not those of ordinary putridity. The occurrence of internal gangrene is known by the sudden cessation of pain, without a corresponding relief to the other symptoms.

Gangrene, when extensive, or in parts of importance to life, produces great general disorder; as shrinking of features, an anxious look, a feeling of distress without actual pain; a feeble and irregular pulse; hiccup; cold sweats; great restlessness, often delirium, and death.

The immediate *causes* of gangrene are, 1st, the violent action of the vessels of the part; as if the over-exertion proved fatal. 2ndly, the consequences of this; as effusion, pressing on the vessels, and interrupting the circulation.

Gangrene as a consequence of inflammation, is more likely to take place in some circumstances than in others. Parts that are very irritable, such as the stomach, the small intestines, and the skin, are particularly subject to gangrene. It is most disposed to occur in parts remote from the centre of circulation, as in the lower extremities; and in old and de-

bilitated subjects, especially in those addicted to the use of intoxicating drinks, or who are labouring under anasarca. In such subjects, the slightest wound, or the most trifling degree of inflammation about the feet or ancles, is attended with danger.

It is not easy to account for the great disorder of system produced by gangrene, even though this be of small extent. It is not from the importance of the part, in regard to the general system; for the skin cannot be considered as of immediate importance to life; and yet gangrene of this part often proves fatal. A quantity of skin ten times larger, is frequently removed by operation, without any such effects resulting.

Of the Treatment of Inflammation.

We come now, Gentlemen, to the last part of our subject, that to which indeed all the others tend, namely, the *treatment* of inflammation, a point of no small difficulty, as it requires to be very different, under different circumstances. There is no absolute or universal remedy for inflammation; none which is successful at all times, nor which is applicable under all circumstances. And, therefore, the skill of the practitioner consists in the proper adaptation of his means to the circumstances of the individual case.

In the first place, you are to make a distinction between *treatment* and *cure*. The proper treatment of inflammation does not always consist in the attempt to effect an immediate cure of it, although this might be practicable. On the contrary, there are many cases where it is most for the patient's benefit to allow the disease to continue, and some, even where it is right to aggravate it.

1. Sometimes an inflammation arises in the course of another disease, which subsides in consequence, or is at least mitigated thereby. Now if the secondary disease (the inflammation) should be less dangerous or important than the prior one, it would be imprudent to attempt the immediate removal of the secondary inflammation, as the former disease would be likely to be brought back again, or at all events aggravated.

Thus for example, in the course of a fever, inflammation sometimes arises on the skin, and the original disease—the fever—gives way in consequence. In this instance, it would be improper to attempt the removal of the second disease, for fear of bringing back the fever, which is the more dangerous disease of the two. In like manner, diarrhœa, or inflammation of the mucous membrane of the intestinal canal, frequently comes on in the course of fever, and the fever is thereby mitigated, if not wholly removed. Now in such a case, it would be wrong to suppress hastily the diarrhœa, especially by means which tend to disturb the brain, such as opium more especially. It is only proper to do this, when the diarrhœa goes to too great a length, so as to harrass and distress the patient. Upon the same principle it is, that we hail the occurrence of gouty inflammation, in a variety of other diseases; knowing from experience, that it is likely to benefit greatly, and perhaps remove the previous disease.

Another case in which it might be improper to attempt the cure of an inflammation, is where it has become habitual; for the system may be so accustomed to the stimulus of disease, as to require its continuance; without which the whole may be thrown into a state of general disorder, and some formidable disease arise in consequence. This has been frequently observed with regard to chronic cutaneous disorders, old ulcers, and the like, the hasty suppression of which, has been often followed by asthma, disorders of the stomach, or even apoplexy. When it becomes necessary from any cause, to cure these habitual inflammations, it should be done with caution, by employing evacuations, or some means of counter-irritation, to avert such evil consequences.

Again, there are many cases of inflammation that are absolutely incurable; and where attempts to remove them, especially by the more active means, would not only fail, but might prove injurious.

2. In the second place, although we may be able to cure an inflammation, and it may be safe to do so, still it may be unnecessary to use remedies for the purpose, from the trifling nature of the case and its known tendency to subside spontaneously after a time. This character of inflammation may be often taken advantage of, so as to avoid the having recourse to the most active remedies, which, in themselves, are always objectionable, and only to be justified by necessity. Inflammation of the mucous membrane, when not unusually violent, is generally best left to run its course.

But supposing that no such objections as I have stated exist, and that it is proper to attempt the cure of inflammation in any particular case, the first object always is to remove the *cause*, supposing this to be still acting. It is on this principle that surgeons remove splinters of bone in cases of fracture, although by so doing, they may even aggravate for a time the inflammation. So in cases of

ophthalmia arising from a foreign substance in the eye, as sand, an inverted eye-lash, &c., it would be in vain to attempt the cure of the inflammation, until the cause is first removed. So also in inflammation produced by *cold*, it is generally advantageous to keep the patient for a time in a regulated and uniform temperature, by which the disease will the sooner subside.

Now when this object (the removal of the cause) is accomplished, we have next to consider the means of cure proper to be adopted.

The treatment of inflammation is partly *rational*, partly *empirical*, that is, derived from experience, independent of all reasoning. It is *rational*, as far as it is founded on the known nature of the disease. But I have already observed to you, that the nature of inflammation is but imperfectly understood. We see, that in every case, there is increased vascular action taking place; but there is also something more than this, which we do not understand; nor do we know absolutely, or with certainty, how to remedy it. If there were nothing more in inflammation than mere increase of vascular action, we could easily and certainly subdue it; because we can control the action of the vessels at our pleasure. It would only be necessary to apply cold in a certain degree, in order to do this. But this would not succeed in all cases; it might mitigate or suspend, but would not necessarily put a stop to the inflammation; it might give the disposition to subside, (as indeed it often does,) but nothing more. Again, if inflammation consisted in debility, or weaker action of the vessels of the part, as some have imagined, it would then also be an easy thing to effect a cure; for we should only have to apply *stimulants* or *tonics*, in order to accomplish the purpose. But experience proves that such means do not in general succeed, while in many cases they do harm.

In short, we cannot, in the treatment of inflammation, practise much upon general indications, because we do not know clearly and distinctly the principle upon which we ought to act, nor the precise object to be aimed at, further than, in a general way, the endeavouring to effect a cure; this, however, may be accomplished by different and even opposite means, under different circumstances; while we are always to recollect, that we have no certain or absolute means of cure, and, therefore, must use our means, especially the more active ones, with the requisite degree of caution.

The treatment of inflammation is varied by many circumstances, the chief of which are, the *degree* of the disease, as more or less acute or violent—the *stage* or *duration* of it, which is a point of great importance—the *habit* of the patient, as strong or weak—the *nature* of the part affected, which is also a point of much importance—and lastly the *cause* producing the disease, or, which is nearly the same thing, the nature of the inflammation itself, as *specific* or *common:* all of these must be attended to.

Now as, for the reason stated, we cannot rely altogether upon theory as our guide in the treatment of inflammation, we must submit to be governed therefore by the lights of experience, and our best way of proceeding, as I think, will be, to treat in succession of the different means of cure which experience has taught us the use of, endeavouring at the same time to point out the circumstances in which each is applicable, or the contrary.

The means of cure may be divided into *general* and *local*. By the former is meant, such as are applied, not to the part itself, but to the rest of the system; by the latter, such as are applied directly to the inflamed part. On many occasions, and those often of the greatest importance, we are of necessity confined to the former, or *general* treatment, the part affected not being accessible to us. Sometimes we employ both the *general* and *local* treatment at the same time.

It might strike you at first, that the *general* treatment would be less efficacious than the *local*, or the direct application of remedies to the part immediately affected; and you might naturally enough imagine that the danger of internal inflammations would be greatly enhanced from our not having access to them. But this is so far from being true, that the contrary is really the case. *General* remedies are more effectual than *local* ones, which indeed may be frequently dispensed with; even where we could apply them without difficulty. *Ophthalmia*, for instance, is more successfully treated by *bloodletting*, *purging*, and the like, which are *general* remedies, than by ointments, or washes, or any local applications. I shall first speak, therefore, of the *general* treatment, as the most important. Under this head, I shall have to treat of a variety of means, very different in their nature, and applicable under different circumstances, all of which I shall endeavour to explain to you. They are *bloodletting* (the most important of all); *counter-irritation* of various kinds; *general se-*

datives, *tonics*, *stimulants*, and *narcotics*. But as they are all much assisted by a proper management of the patient, or what is called *regimen*, which indeed in many slight cases of inflammation is of itself sufficient for the cure, I must first call your attention to this.

Under the term *regimen*, is included the consideration of *food* and *drinks*, *air*, and *exercise*, and even *posture*, *sleep*, and *watching*, the regulation of *mind*, and the natural *evacuations*.

Abstinence, both with regard to food and drinks, is necessary where the patient is strong, and the disease recent. Abstinence, however, is a relative term, and in the application of it, you are to be governed by the previous habits of the patient, for what is abstinence to one, may be excess to another. Abstinence is by no means so necessary in weak subjects, and in an advanced stage of inflammation. In such, it has often appeared to me to be injurious, instead of being favourable to the going off of the disease. There is no inconsistency in employing *bloodletting*, and at the same time allowing the patient to take food according to his inclination. It is an important part of the treatment of inflammation to equalize the circulation, as a means of preventing that determination of blood towards the diseased part, to which there is so strong a tendency. But the sinking feel that takes place when food that the appetite calls for is withheld, is quite incompatible with an equal determination of blood throughout the system.

By putting a number of organs to work, which is the case when food is taken, the powers of the system are exerted in different directions, instead of being concentrated, as it were, in one point; as must happen when so great a number of parts are quiescent, as those that are engaged in supplying the body with new matter. The excitement of these organs by food operates as a kind of counter-irritation to the diseased part. As a mere matter of experience, I am fully satisfied from observation that, in the circumstances mentioned, the patient may be safely allowed to follow his inclinations in regard to the taking of food, provided it be of a plain and simple kind, and that whether of a vegetable or animal nature. It is seldom proper to take food where it is loathed, and on the other hand, it is as seldom necessary to withhold it, where the appetite strongly calls for it, that is, under the restrictions mentioned; so that there is less need of a rule here than is commonly supposed.

With respect to *air* and *exercise*, as parts of the treatment of inflammation, I can hardly conceive a case where it would not be advantageous to the patient to breath a pure atmosphere; and in many cases, as in fevers, it is of the utmost consequence that he should do so. Considerable differences exist with regard to situation, as more or less elevated, dry or moist, &c. These must be determined by the nature of the disease present. Thus in *phthisis pulmonalis*, a low situation and a moist atmosphere are generally preferable to a dry and elevated one. In *hepatic* disease, the reverse. But there may be exceptions in both cases. These remarks apply to chronic diseases; in acute ones it is a matter of little moment.

Generally speaking, exercise is objectionable, as tending to quicken the circulation. This applies, however, rather to acute than chronic inflammation. In regard to *posture*, the easiest is generally the best. The horizontal posture is to be preferred in acute inflammations, as the least exciting to the circulation.

There is commonly too much anxiety to procure *sleep*, in disease; for it can seldom be effected, at least by *narcotics*, without a risk of aggravating the disease. The regulation of the *mind* is of great importance, on account of the influence it has on the circulation; but it is doubly so in regard to *brain affections* of all kinds. The *natural evacuations* are not to be neglected in the treatment of inflammation. It is generally desirable that they should be kept up to a moderate extent. But there is no necessity or advantage in watching, so minutely as is generally done at present, the state of the biliary secretion, as if this were the only point worth attending to. It has seldom any thing to do with the disease, except as an effect, and that only in common with the other secretions; nor, if it should be deficient, as no doubt it often is, will the restoration of it have any direct or material influence on the cure.

In our next lecture, I shall treat of *bloodletting*, the most important of the means we possess for the cure of inflammation, and one that is often indispensable.

LECTURES

ON SOME

PRACTICAL POINTS OF SURGERY,

DELIVERED TO THE

Students of the late Borough Dispensary,

By MR. ALCOCK.

Lecture XII.

On the Mechanical Extraction of Poisons from the Stomach; and on the treatment of Suspended Animation.

Gentlemen,

In the preceding lecture, I alluded to the use of the stethoscope, as a mode of arriving at accuracy in the diagnosis of fractures; that practice in the use of the instrument is essentially necessary to arrive at any thing like certainty you must be well aware, and that the occasions of acquiring this experimental knowledge cannot be derived from the living body by the numerous students of an hospital, unless by subjecting patients to a much more protracted examination than can be compatible with their welfare; the knowledge may, however, be acquired in the dissecting-room, and a single subject be made to serve for the instruction of an entire class. This is an exercise which I am fully persuaded will repay the labour and attention you may devote to it; write the results of your examination of each fracture that you may be enabled to correct or verify your conclusions by the subsequent anatomical investigation of the parts on which the experiments have been made. It is to be regretted that the valuable memoir of M. Lisfranc, on this new application of the stethoscope to surgical purposes, has not appeared in an English dress.

In a former lecture, I mentioned the error of binding the chest too tightly when the ribs were fractured; since that time I have met with a preparation illustrative of its bad effects; (this was subsequently submitted to the examination of the students;) several of the ribs had been fractured, and the ends of three of them had been forced past each other, and had united in that position, so as to project in a very irregular manner into the chest; great mischief had taken place in the lung opposite the place of fracture.

The mechanical treatment of poisons is a subject of considerable importance; but there is a period to which its usefulness is limited, namely, whilst the poison remains in the stomach; for it is in vain to expect relief from the extraction of the remainder, after a sufficient quantity to destroy life may have passed the pylorus, or have been carried into the circulation.

There is another circumstance of which you should be aware, that whilst the stomach retains its irritability, the poison may be as effectually and as speedily evacuated by vomiting as by the use of a pump; and if such emetics as the sulphate of zinc, which in sufficient dose acts almost instantaneously, be timely administered, the occasions for the use of mechanical means will be found to be much less frequent than has been supposed to be necessary.

Should you however, be convinced that the welfare of your patient requires the stomach to be emptied mechanically, the means may be both simple and efficient. The complications of instruments, which I doubt not may have been profitable enough to the vendors at the enormous prices at which they have been furnished to the profession, afford, I fear, no very favourable indication of the general scientific attainments of those members of it who might have the opportunity of examining these wonder-working machines before they purchase them. They are inferior to a simple well constructed syringe with a flexible tube; the complexity of valves or sliding orifices may serve to amuse; but these contrivances are more likely to be clogged with half-digested substances, than a direct communication, every part of which shall be of sufficient diameter to allow of the free passage of whatever can have entered at the orifice of the flexible tube. Even the syringe may be dispensed with, unless it be desired to inject fluid forcibly into the stomach; for the tube alone, if of proper dimensions, when passed down into the stomach is sufficient to evacuate its contents, either by being used as a syphon, or by a very moderate pressure of the hand upon the region of the stomach; you may readily verify the practicability of this mode by experiment upon a living animal; but it does not rest upon experiments on the lower animals; for Mr. Evans, surgeon, of Belper, used it successfully in the case of a female, in the year 1820, the management of which does credit to his skill and common sense.

In injecting the stomach previously to withdrawing its contents, there is one precaution which must not be omitted, should the patient be in a state of insensibility, and be supported with the head and shoulders raised, as is the most convenient position for the operator. If the injection be continued beyond wha the stomach can contain, instead of the fluid flowing out by the lower orifice of the stomach, it is apt to rise by the side

of the tube, and if the head be inclined backwards, to fill the fauces, so as to endanger suffocation.

The passing of the tube presents little mechanical difficulty to any one acquainted with the relative position of the parts, except what may arise from the sensation of sickness, by the tube coming in contact with the fauces, pharynx, &c. If the tube be very soft, a piece of whalebone, similar to the handle of a probang, may be inserted within the tube, when it is introduced, to give it firmness and elasticity, withdrawing the whalebone when the tube is fully introduced.

If the simple syringe be used, it may be half filled with tepid water, and when joined to the tube, the liquid may be injected; by raising the handle of the syringe, so as to fill the syringe, double the quantity of the fluid injected may be withdrawn from the stomach; and this process may be repeated as often as necessary, till the stomach be perfectly washed, and its contents evacuated.

There is a danger in the use of either syringe or pump, in awkward hands, which may be productive of distress and injury to the patient, it is the drawing of the coats of the stomach forcibly within the tube; and when it is considered that the surface thus drawn in may be subjected to a force equal to the pressure of the atmosphere, it forms a strong ground for the preference of more simple means, in the use of which a want of dexterity does not endanger the patient. By either using the flexible tube as a syphon, or by a very moderate degree of pressure with the hand upon the region of the stomach, the fluid contents of the stomach may be made to flow through the tube in a full stream, and the application of a greater force, when the lesser is fully adequate, is, to say the least, unnecessary and useless.

[The injecting of the stomach, and withdrawing its fluid contents, was demonstrated upon a living dog, using the syringe in the first instance, and then showing that the evacuation of the contents of the stomach was practicable by the tube alone, used as a syphon, or by very moderate pressure on the abdomen.]

Should you wish to trace the history of the invention, you will find, in the first volume of THE LANCET, (Dec. 1823,) "On the immediate treatment of persons poisoned," a list of authors, whose works and communications you may refer to, that you may examine the facts and dates impartially, and determine for yourselves.

Suspended animation may arise from various causes, as from drowning, hanging, suffocation by noxious vapours; practically considered, these may be looked upon as mere modifications of suffocation, by which that change in the blood effected by respiration, which is essential to the preservation of life, is interrupted or prevented. The effect is the same whether respiration be rendered mechanically impracticable, or whether the air respired be deprived of its oxygen, (or vital air,) on which its property of sustaining life by respiration depends. In drowning, the abstraction of heat from the body by the water, is more rapid than when the body is surrounded by air, consequently, in our attempts to restore animation to those who have been submersed, more immediate attention is required to restore the warmth of the body, than in suffocation from other causes.

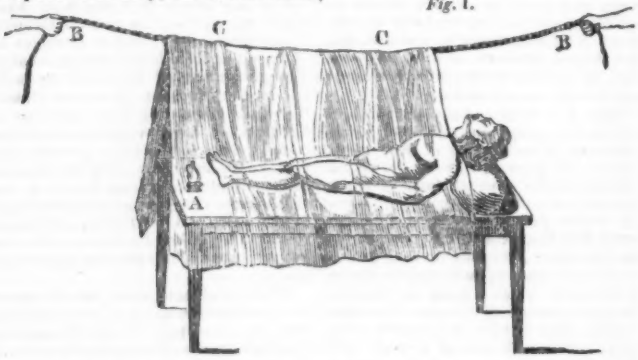
You are aware that the dark blood which circulates in the veins is incapable of sustaining life, when it occupies the place of the florid blood, which circulates through the arterial system of the body; and to the condition of venous blood is the whole circulating mass speedily reduced, when its renovation by respiration ceases. Hence, therefore, you will infer, that the essential part of the treatment of the apparently dead from drowning, consists in preserving or restoring the warmth of the body, and in effecting artificial respiration till (when the vital spark is not extinct) natural respiration again takes place.

When accidents occur which require the treatment adapted to restore animation, it unfortunately often happens that the best means of carrying the remedial intentions into effect, cannot be immediately, if at all, obtained; it therefore becomes imperatively the duty of the medical man to consider well how far the treatment may be simplified, and instead of confusion and dismay, because a box of tools, consisting of bellows and other implements, cannot be obtained, to satisfy himself, by previous experiment, that the means with which nature has provided every individual, when judiciously employed, may be rendered effectual substitutes for the more complicated resources of art.

The application of warmth to the body, (the wet clothes, if any, having been speedily removed,) may be effected when hot water can be obtained, by the frequently renewed application of woollen or other cloths wrung from the hot water, and immediately applied to the surface of the body. When artificial heat cannot be had, the surrounding of the body with dry woollen clothing, such as a blanket, which, being a bad conductor of heat, prevents in a great measure the

further loss of heat, and if there be individuals present whose services be not otherways required, the warmth of the living body may be made by contact to afford it in some degree to the unfortunate object of solicitude, or the body may be placed upon a bed. By a spirit lamp and a blanket, quilt, or sheet, a warm atmosphere may be speedily made to surround the body of the sufferer; and if the treatment be carried on in a house, there are few habitations which cannot afford a cup or saucer with a little spirit, which may be lighted, and the blanket be held by assistants, or by a cord, leaving a space between it and the body, closed at the sides and ends, so as to retain the heated air furnished by the burning of the spirit. The body, and not the face, should be thus exposed to the warm air; as the air thus heated is not sufficiently pure for breathing, and further, the medical attendant should be employed in effecting artificial respiration, at the same time that others attend to the warming of the body. The warmth may be regulated by making the apertures at the ends of the blanket more or less open, and its degree may be ascertained by the arm of an assistant placed between the blanket and the body of the patient. I may seem to be too minute in thus dwelling upon particulars; but next to artificial respiration, you will find the proper application of warmth to the body of the greatest value in the treatment of suspended animation from drowning.

Fig. 1.



In this rude sketch, the body is represented as extended upon a table, the head and shoulders being gently raised.

Fig. 1.—A The spirit lamp, or cup or saucer containing spirit which has been lighted.

B B A cord held, or otherways fastened, to support the blanket.

C C The blanket, which should extend over each side of the table, and be pinned, so as nearly to close the ends.

Fig. 2.

Fig. 2.—Tube for inflating the lungs.

A The end to which the mouth of theassistant is applied.

B The end which is inserted into the nostril of the patient, and is slightly bulbous externally, to prevent it from slipping.

Artificial respiration is the most important of all the means employed in the treatment of persons apparently dead, from any of the causes of suffocation.—The apparatus of the Royal Humane Society, which consists of bellows, various tubes, an elastic bottle for administering cordials and glysters, a scalpel for performing the operation of tracheotomy, &c., is very complete, when at hand and under judicious management; the former is rarely the case, and the latter may not be found although the instruments be in readiness.

Respecting the operation of tracheotomy as a mode of facilitating the inflation of the lungs, were it not known that patients who have been resuscitated have died in consequence of this operation, by the blood from the wound flowing into the windpipe and producing suffocation, I should still object to it as one of those barbarisms which sets common sense at defiance. The passages which nature has made for the transmission of air during the life of the individual, are quite sufficient for the purpose of artificial respiration; for the parts, in the stillness of apparent death, are passive, and the tales of spasm preventing the admission of air may pass with the vulgar, but will not impose on the understanding of any one who has dared to examine the subject and to think for himself.

In a case of suspension, from the history of which there was every reason to anticipate that resuscitation might be effected, the surgeon first called determined to perform the operation of tracheotomy; the patient was corpulent, and the blood filled the wound repeatedly before the trachea was exposed; when it was opened the blood continued to ooze rapidly, and the opening was so jagged and irregular that the utmost efforts of the operator did not succeed in adapting the bellows to it so as to effect a single distension of the chest in imitation of natural inspiration.

In performing this operation, if the artificial aperture be less than that of the trachea itself, any tube inserted into the lesser opening allows the air to escape by its side along the trachea, and if the gap be made large enough to admit the nozzle of a pair of bellows, the difficulty of fitting it accurately, so as to prevent the escape of the air, is much greater than in applying the tube to the mouth or nostril.

In effecting artificial respiration by the natural passages there is a precaution required, which if neglected is apt to defeat the attempts of the operator. If a person uninstructed attempt to inflate the lungs he will blow up the belly, and, if he persist, the abdomen may be so greatly distended as to press the diaphragm so forcibly upwards into the chest as to render the subsequent distension of the lungs almost impracticable; I have known this circumstance to happen in attempts to restore suspended animation, with what success I need not inform you; the reason is obvious, the air is forced down the œsophagus with a slighter degree of pressure than is necessary to raise the chest, in the absence of muscular action, consequently, it becomes necessary to press the firm upper part of the windpipe (that projecting part known by the common appellation of Adam's apple) upon the gullet, which passes behind it, which effectually prevents the air from passing into the stomach: a very moderate degree of pressure is sufficient when applied at the proper place.

The usual mode of inflating the lungs is to insert a short tube into one nostril; the pipe of a pair of bellows is inserted into the tube, the other nostril and the mouth are closed by an assistant, who should also make the pressure above alluded to on the wind-pipe; the air is then gently forced from the bellows till the chest is distended, when the pipe is withdrawn and the chest pressed to force the air out, and this process is repeated again and again, so long as the artificial respiration is continued.

This mode, you will perceive, is complicated, and cannot be carried into effect by one individual. If the apparatus of the Humane Society be not at hand, the adaptation of common bellows is a call upon the ingenuity of the bystanders, which few are able to meet; hence much valuable time is wasted in fruitless efforts. It therefore is of importance, that you should know how to obviate the difficulty, or to substitute such means as may be more manageable and yet efficient.

Although pure atmospheric air is to be preferred to that which has been partly respired, we know that air, deprived of a part of its full proportion of oxygen, is still capable of sustaining life. Suppose, by way of illustration, that two cubic inches of oxygen be absorbed at each respiration, and that in a state of health the inspirations and expirations take place fifteen times in a minute. Suppose, on the other hand, that the air be deprived of one half of its proportion of oxygen, so that the quantity inhaled at each inspiration, instead of affording *two* cubic inches of oxygen, afford *one* only; but if the respiration be doubled in frequency, so that instead of fifteen it should take place thirty times in the minute, you may

readily conceive the effect should be the same, that in each instance thirty cubic inches of oxygen would be consumed in one minute.

Carrying this principle into effect, I should have no hesitation whatever in performing artificial respiration, in a case of suspended animation, by air which has been partly respired, unless complete apparatus were at hand, that the inflation of the lungs could be carried into effect without delay. I am aware that some persons are of opinion that nothing can be done without the bellows, but in numerous instances (when I was engaged in general practice) I have used successfully the simple mode, before alluded to, of inflating the lungs of still-born infants, by using the air which I had hastily respired for the purpose of inflation, without any other apparatus than the simple tube (fig. 2) which forms a part of my pocket case of instruments. I have succeeded in rescuscitating (using external warmth at the same time) in instances which, from the long cessation of the heart's action, have been considered hopeless, and when the slightest indication of returning life did not make its appearance until after long-continued and unremitting artificial respiration. I have traced the change of colour in the lips, &c., from the dark livid hue till it became nearly of the natural florid tint, before a single act of natural respiration had taken place, and I have also traced the return of the livid hue in a very short space of time when the artificial respiration was suspended. Again, on renewing respiration, the florid hue of the lips has returned, and after respiration had been kept up a considerable time, I have had the pleasure to witness the first inspiration by the muscular action of the infant. Till the natural respiration has been fully established, the inspirations have been at intervals more or less considerable, and each has rather resembled a convulsive gasp than an ordinary inspiration, the countenance at the same time being strongly affected. Whenever the heart's action has been suspended for a few minutes only, the rescuscitation has been slow; I have persevered for a full hour before the first unaided inspiration has taken place, and yet have had the gratification of witnessing the establishment of breathing life and the recovery of the infant.

By applying my mouth to the straight end of the tube A, and by inserting the bulbous end of the tube B into the nostril of one side, and compressing the opposite nostril with that in which the tube was inserted so as to make it fit closely, taking the precaution to close the mouth and press the larynx upon the pharynx with the other hand, I have never experienced any difficulty in inflating the lungs of an adult before the muscles had become rigid, and after that period no rational expectation of rescuscitatition could be entertained.

Even in the absence of all apparatus, artificial respiration may be effected in a case of suspended animation, but not without a disagreeable office on the part of the operator, which might be spared by the slender foresight of being provided with a tube: accidents requiring its use are fortunately of rare occurrence; but one life saved would amply repay any supposed inconvenience of being at all times prepared for the more sudden and urgent duties of that profession, whose humble glory is to do good to others. In the absence of all apparatus, the inflation can be performed by the operator placing his mouth in contact with that of the sufferer, interposing a thin handkerchief if it be sufficiently open to allow of the free transmission of the air, compressing the nostrils and pressing the larynx upon the pharynx, forcing the air into the lungs, then removing the mouth; the same process must be renewed as often as the distension of the lungs may be deemed necessary.

Friction, stimulants, bleedings, &c. have been recommended; unless circulation be previously restored, they are useless, and when circulation and respiration are again established, the danger is generally past, unless under particular circumstances of ignorance or mismanagement.

I have, however, known death to occur more than 40 hours after animation had been restored, after an attempt to commit suicide by hanging. The sufferings of the patient were dreadful.

In suspended animation from noxious vapours, it has been recommended to affuse cold water freely over the body, before proceeding to artificial respiration. In France, M. Labarraque has used the chloluret of lime with effect so surprising as almost to appear magical, in cases of suspended animation produced by mephitic vapours from cess pools, drains, &c.

In suspended animation from exposure to extreme cold, the restoring of the natural temperature must be extremely guarded and gradual.

Gentlemen, in concluding these lectures, let me advise you to persevere steadily and regularly in your professional studies. Never let any one day pass without advancing some step—without acquiring some fresh knowledge; let those studies which more immediately qualify

you for the important duties of your profession, be fairly advanced before you spare much time for ornamental pursuits; be not depressed should your worldly success fall short of your just expectation; whilst some early attain extensive practice, few rise to eminence as improvers of the science of surgery; but it is in the power of every one, by persevering application and undeviating integrity, to deserve success, and to enjoy that tranquillity of mind which results from the best exertion of his talents to alleviate the sufferings of his fellow creatures.

ANATOMY AND SURGERY

CONSIDERED IN

Relation to the other Branches of Learning.

THOSE sciences which are instituted for the general utility and immediate benefit of mankind claim the highest rank in our estimation.

As the necessities of men are more urgent than their pleasures, and as the enjoyment of pleasure depends primarily on the full accomplishment of their wants, so in proportion that which is useful in the common affairs of life demands ascendancy over the mere gratifications of the mind. It is the natural propensity of man to study his comforts. Brutes are endowed with a certain degree of instinct, sufficient for the provision of their food, and, according to their species, are armed with forces necessary for their protection. This animal possesses fleetness to escape its pursuer, but the cunning of its enemy will often supersede its speed; in short, every naturalist is acquainted with the wise and just laws which nature has ordained throughout creation. Yet brutes have no power to extend this faculty; all their enjoyments are enclosed in the narrow compass of satisfying their necessities. But man, in the full perfection of his reasoning faculties, is not satisfied with mere animal existence; he exerts his invention for new delights; he wanders, as it were, over the garden of the world to gather its products; he selects this flower for its beauty, and that for its fragrance; he cultivates this plant for the indulgence of his appetite, and that for its specific virtues.

If we study the history of man from the earliest ages, we shall find that, according to the gradual development of knowledge, the wants of man increased, but the means of satisfying them were fortunately exhibited in the same proportion. Society, which had hitherto been as a republic, became divided into different classes, distinguished by their different pursuits. As learning opened her various sources, each man, as the bent of his inclination led him, followed that most adapted to it. The adventurous spirit sought the fruits of other climes, encouraged by the support which novelty inspired; the painter and the poet presented the beauties of nature, embellished by their imaginations; the sculptor carved from the rude block the image of humanity; but the anatomist, not satisfied with the external man, ventured to examine the component parts, and to survey the operations which nature effected, with beautiful simplicity, in the regular adaptation she presents one part relatively with another, and in the grand conformity of the whole.

As in society there exists a mutual dependence, one class with another, so in science there is a corresponding connexion. How evident is the illustration!—The rich man, riding in his carriage with aristocratic elegance, is indebted to the tradesman for this provision, as the tradesman is obligated to him for his patronage. Thus in science, the artist confesses the benefit of the anatomist, and the physician courts the aid of chymic art to adjust his remedies to the peculiarities of disease. This brings me to the consideration—in what position, relatively with the other sciences, ought we to rank the study of the human frame? It is not my intention to enter into the history of the rise and progress of the study of medicine and surgery, but merely to refer to such matters as bear immediate relation to the subject.

It is a well authenticated truth, that the first promoters of medical knowledge encountered many obstacles to the advancement of their pursuits. Superstition so generally pervaded the mass of mankind, that the skill of the operator was ascribed to witchcraft, and the secrets of the curative art could only be learnt, by the vulgar, by leaguing with the devil. With these difficulties presented by the simple credulity of the people, and the consequent dangers attending the practice of the art, we cannot wonder at the slow progress this knowledge made in the darker ages. Fortunately, however, for the interests of mankind, the original professors were men of undaunted intrepidity, who fearlessly opposed every danger, in defiance of the menace of a bigoted priesthood; and who, with the zeal of martyrs,

pursued their honourable course, though the horrors of an inquisition frowned upon them, and though their reward was the fiery ordeal of persecution.

On the other hand—look to the advantages afforded to the growth of other knowledge, and the liberal encouragement given to all whose pursuits did not interfere with the power of the clergy; For at that period, the little medical knowledge that did exist, was confined to the monastery, and the skill of the holy men was accounted miraculous, and the peculiar gift of heaven.

The vanity of princes and nobles encouraged the study of architecture. Each conceived his dignity correspondent to the splendour of his palace; therefore, his patronage was not excited by an admiration of the works of genius, but it was the offspring of a weak ambition. The sculptor was next engaged to model the features of the haughty mortal on his block of marble, for the admiration of his suppliant vassals; and the poet tuned his lyre to sing the parasitical praises of the imagined hero;—to commemorate his existence, like an epitaph which throws an oblivious shade o'er the blemishes of the being which rots beneath.

The refinement, however, which these arts produce on the character of the people, induced also an indulgence in new luxuries. The evils arising from them demanded the aid of some power to counteract them. It was then, when the necessities of men became urgent, when pleasure led on a train of ills, and the body became enervated by debaucheries; —it was then, that the fetters, which bound genius in their grasp, were broken: —it was then assumed that the skill of the physician proceeded from natural causes, and that it was not dependent on the *direct* influence of heaven—Miracles ceased, and the "mighty magic" of the crafty monk dwindled to the innate virtues of a weed.

The power which these holy fathers held over the minds of an ignorant people was in a great measure supported by this peculiar knowledge; and I conceive the expansion of this new learning was most essential in dissipating the clouds of superstition, and in exposing the villany of religious despotism. Let the reader refer to the history of those great and learned men—Vesalius, Petit, and others, and then let him trace the slow progress which medical and surgical knowledge made, and with what hazard the efforts of these men were accompanied.

Allowing then, that the wants of man are more importunate than his pleasures, as daily experience gives evidence, I presume, that the alleviation of bodily suffering is infinitely of more consequence than the gratification of mental or sensual desires. What are the enjoyments of life, the charms of society, the luxury attendant on wealth and rank, without the blessings of health?

Of what consequence is the exquisite colouring of the painter, the delicate union of light and shade, the vivid beauties of the landscape, or the display of human expression, to the man whose vision is obscured by the veil of disease? The rich harmony of sounds, or the delightful notes of a Catalani in vain strike the tympanum of him whose auditory organs refuse their office! To descend to more sensual gratification,—what are the richest viands, the delicious compounds which feed, yet satisfy the appetite, to the patient groaning

"Under indigestion's heavy debt"?

The ingenuity of an Ulde* stagnates, and the cookery of the philosophic Kitchener, is exhibited in vain! Where is relief? Nature alone is powerless; patience may smile at her griefs till she sinks under them, and a Hohenloe sympathise in prayer to no purpose! The skilful surgeon with his knife restores the senses to their wonted vigour. The eye again beams with delight at the variegated prospect, and the ear drinks in the thrilling sound with rapture. The physician's skill resolves the cause of the sick man's illness; he prescribes his palliative remedies, and the festive board again invites to "the feast of reason and the flow of soul."

What other advantages have been derived from the anatomy of the human frame? It is true, metaphysics are still a labyrinth, and the pineal gland is rejected. Yet the laws by which nature so secretly and equally effects her purposes, have been elucidated, and the mysteries which once accompanied all her operations are reduced to simplicity and conviction.

The chisel of Canova or Chantrey shapes from out the block the semblance of a man; but by what power do they express the strength of Hercules, the gracefulness of Apollo, or the loveliness of Venus? Their ideas of strength, of elegance, and of beauty, were originally conceived in their imaginations; but it was the knowledge of human structure which matured their judgment, and perfected their lively conceptions.

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* Cook to the King of France.

It is by this art that the painter expresses the various passions of the mind; his rules are founded on this basis; the muscular energy which portrays the ardent look of the warrior, and the absence of all activity which represents the meek humility of a Saviour. Without this knowledge his hero would be like the daubing of a Saracen's head, where valour is clothed in a superfluity of beard and eyebrows, and the resigned countenance of the Saviour degenerate to the uncouth portrait of a Saint, under whose tutelar protection the ale-house flourishes.

All the motions of the body are regulated by the simplest laws of mechanics, and the least deviation from their control is attended with serious consequences. Is it not probable that many of our inventions have been prompted by this investigation, or that at least the rudiments of mechanical sciences are built upon it? It may be considered arrogance to presume so much on the importance and relative application of anatomy, yet there does exist a strong analogy between the muscular powers of the body and the forces of mechanical inventions.

Chemistry has added considerably to our researches, and, by its aid, many points of the deepest interest have been explained, and many practical errors been rooted out. Yet much remains for the elaborate inquiry of the philosopher, and, as I once heard a very learned man exclaim, "When I think of the world's age, I am ashamed to think that we know so little!"

With regard to its influence on literature, we may boldly affirm its importance. It may appear an anomaly to assert, that the dissecting-room should be the temple of the Muses, or that the "Child of Song" should carve his verses out of the wreck of mortality! It is not a scene of poetic beauty, awaking all the melting passions of the soul, or, like music, subduing our discordant feelings to its own melody; but it is the school where philosophy presides, pointing out the curious relations of our nature, and expanding our intellect by the knowledge of our own formation.

To the mind, ill-directed or narrowed by the want of education, the beauties which nature presents in boundless variety, are blank and unmeaning prospects; and though the gifted mind portrays beauties of its own creation, they are as the diamond from the mine, which wants the artist's skill to prove its brilliancy. Man is the most perfect work of the Deity, for he was formed "in the image of his maker;" partaking of his excellence. Ranking, then, as he does in the highest grade towards perfection, endowed with a mind whose conditions are so intimately blended with the conditions of the body, may it not be urged, that the knowledge of the latter will materially facilitate the inquiries into their relative connexions?

The study of man as a social being, is deemed the requisite of a polite education, and to be acquainted with him in his various dispositions with mankind, constitutes the "man of the world." But man, abstracted from his station in society, and divested of his connexions with the world, is another being. Here opens an investigation of a more exalted kind, sublime in reference to its allusions, and laudable as regards the dignity of our nature.

As another argument to show how greatly this study has contributed to the cultivation of literature, we may adduce the condition of general knowledge in the earlier ages. Sculpture and painting had made considerable progress, long before anatomical knowledge was at all cherished and only waited its development for their perfection; but music held an independent rank,—and though the Athenians boasted of their city as the seat of learning and refinement, the history of those times plainly evinces the narrow extent of its diffusion.

After this consideration, it would be superfluous to dwell longer on the necessity of these pursuits for the general benefit of mankind—

> "The proper study of mankind is man."

Whether as relates to his qualities in his sphere of action, or to the more remote, yet important intercourse with the cause of his existence. A few remarks in conclusion on the culture of chirurgical knowledge, and on the conduct of its professors will not be irrelevant.

Liberality of sentiment encourages merit and fosters genius; a jealousy of excellence creates envy, which ever detracts from the qualifications of others and stifles rising talent. It is a pleasing reflection to survey the improvements which have of late been manifested in the various branches of science, and to contemplate the general benefits which the patronage of the liberal-minded has conferred upon mankind.

But in the review our satisfaction is not unmingled with regret, when we discover that equal advantages have not been extended to all; that one science, the most

important as regards the actual comforts of men, has been excluded from this otherwise general support. It has been alleged against the most exalted members of the chirurgical profession, that they have limited the opportunities of improvement, and founded measures calculated rather to impede the progress of scientific knowledge, than to cherish it. That this is not an idle averment, facts do but too plainly testify; the pertinacious adherence to absurd forms and the adoption of rigorous orders evince its truth.

Of what utility is it to mankind if the curiosities which have been afforded to philosophic research are defended from the eye of the inquirer? If the peculiarities incident to human nature are hidden in the venerable dust of obscurity? It is like digging for gems, and then burying them in a dunghill. Who is he that hides his talent in the earth to preserve it? The man who cannot estimate its value, and who therefore is not worthy the possession of it.

Those men are guilty of an injustice towards their fellow-creatures, who have the power to extend real benefits, and who do not exercise it with discretion. It is not allotted to all, to be equally wise; one man by superior attainments, or from fortuitous causes, may have acquired the means of improving our knowledge in a particular study; is it then the duty of his successors to appropriate these advantages to themselves? Are they not bound by the gratitude which is due to his memory, to perpetuate his fame and virtues by imitating his laudable example? To say that he was accounted wise, does not honour them, but rather tells a tale which they would blush to hear.

Misrule never exulted in a long reign, and I hope a brighter sun will dispel the clouds which have so long obscured the horizon of this science. Liberality will usher in genius in triumph, and humble merit will assert its prerogative, freed from the fetters imposed by envy and riveted by ignorance.

WILLIAM STEELE.

ROYAL COLLEGE OF SURGEONS.

THE Lectures, as they are termed, commenced at this place on Tuesday, 14th instant; the "OPERATIVE*" Mr. C. BELL; subject, "Peculiar architecture of the human cranium;" argument, "That a *cleaver sirgin*, if he knew the part of the *kid* to which force had been applied equal to the production of a fracture, he would be acquainted with the situation of that fracture." The "Operative's" only palpable hit was the following, "Here, *gintlemin*, (holding in his hand an *empty skull!*) I compare this to A BELL! and I am sure you will at once perceive the aptitude of the simile;" with this exception, the entire performance was a farrago of nonsense—mere fudgery.

Before the "Operative" made his appearance, Mr. ABERNETHY entered the Theatre at one of the side doors, and having sauntered up to the Professor's table, addressed the audience, which was exceedingly numerous, in the following words: "You are aware that the Board of Curators (and it is composed of men conversant with the affairs of life) has *ordained* that no mark of approbation should be shown in this Theatre, and I think they have acted very properly, because if some only have approbation, silence to the others implies censure." (A Member—"They deserve it.") "Let me intreat you to recollect that the eyes of the profession, nay, of the public, are upon you. You can by clamour prevent these Lectures from proceeding; and all I can say is, if you do so, you will save some of us a great deal of trouble. I have been a Member of the Council for

* This term will convey to the reader a most accurate idea of Mr. BELL's performance; it was truly *mechanical*.

fourteen years, and I can assure you, that during that period every thing has been done for the advancement of our science. Let me entreat you to *suspend your judgment* for a while. Our conduct has been governed by the most honourable and disinterested intentions. We are preparing an answer to all that has been advanced against us, and you shall soon have an explanation of our motives, (a Member—"State them *now*.") This demand at once completely neutralized the action of the "blue pill," and Johnny stood aghast; at this critical juncture SIR BILLY BLIZARD, observing the dilemma of his illustrious, honourable, and disinterested colleague, instantly advanced to his assistance, seized his left arm and in the most benevolent manner pulled poor Johnny out of the Theatre. From these proceedings it may be fairly presumed that the "Ruling Powers" are in a funk! long may they continue so.

As it is somewhat connected with this subject, we will here communicate to the profession an occurrence that took place at the Anniversary Dinner of the London Medical Society, held last week.—Mr. TRAVERS, supposing that his health had been drunk, rose to return thanks, and in the course of his address observed—that "attempts were making, by some disaffected persons, to create a schism in the profession; but he hoped such attempts would be speedily put down, as disgraceful to the cause of science." For this insolence the "Hole and Corner Gentleman" was soundly hissed.—*Disaffected* persons! *disaffected* to what?—One of the most disgraceful institutions existing in this or any other country.—Has not this man, on more than one occasion, avowed himself as the advocate of darkness?—What said he at the St. Thomas's and Guy's dinner, in January 1824? "A very important reason why Surgery has advanced is, that *education* cannot be had for *nothing* in this country, and that the *education* required for our profession is both *elaborate* and *expensive*." Is knowledge power, Travers? if it be, thou hast ample cause to fear its progress, as but a very trifling portion of it could drive thee from thy ill filled station.—Away, bungler, "*thy tools are blunt*."

"SOUND CHIRURGICAL KNOWLEDGE."

AWAY with all your stethoscopes, your stomach-pumps and tractors;
Away, ye little mountebanks, make room for greater actors!
Here come Sir Astley Cooper, Bart., Bill Buzzard, and Old Luddy,
With bellies big, and purses deep, and brains cold, soft and muddy,
With seven other learned pigs from London's Royal College,—
Who come to tell us when and where to purchase good "sound knowledge;"
To show how learning, like the itch, prefers a northern station;
And how thermometers become, fit tests of education.
"Sound Knowledge," say these cunning quacks, dwells only, on permission,
With those to whom we grant a right to sell it by commission.
Like sprat or herring, learning comes in season in November,
And knowledge gained at other times won't serve to make a member.
—But here they are, these ten "wise men," let's listen to their gammon,
Perhaps they'll tell us why sound sense may not be had with salmon.
—Who is that red-gill'd big-paunch'd man, and who that little fellow?
What! don't you know the lecturer on fæces black and yellow?
That is John Ab—rn—thy, mon, frae Scotland cum to London,
To tell how certain things should look, at times when breech is undone;
"Like wetted rhubarb should they be"—but hark, he growls, pray listen,
And, if he's contradicted aught, mark how his eyes will glisten.

John Ab—rn—thy, loquitur.

"Ye stupid fools and blundering churls,
who want our leave to practice,
Behold, I take the pains to tell what our
new-fangled act is.

We have decreed that there shall be *in*
England but one station
At which young men shall "grind to
pass" with *our* approbation.

With *Scotland* 'tis a different thing, you
all know I am Scotch, sirs,
And for my clan I do not mind—to shuffle,
cheat and botch, sirs.

In *Scotland* then raw lads may find *three*
schools to one elsewhere, sirs,
And those who deem this law unjust may
scout it if they dare, sirs.

Though England have a right no doubt,
from size and population,
And wealth and rank and consequence,
to claim a trebie ration,

There must and shall be three to one in
favour of the Scots, sirs,
Or else, I vow, I'll write no more coarse
chapters on ——— pots, sirs.

Moreover, 'tis our royal will—our most
imperial pleasnre,
As well to fill our classes out, as swell our
bags with treasure,

That knowledge henceforth be unsound,
to reason quite contrary,
Unless obtained sometime about the
month of Jannary;

No one shall dare to think or say that any
man can truly
Acquire the art of lopping limbs within
three months of July.

It shall be monstrous and absurd for brats
to learn their letters
In summer time, as if to mock *at us*, their
Royal betters;

We will solicit Parliament this Session, if
it pleases,
To pass an act to shut up books, except-
ing when it freezes,

To make it felony to teach or learn in
summer season;
Dissecting shall be sacrilege and "*grind-*
ing" shall be treason.

So fare ye well, confound ye all—may
every ill infest ye,
If ye shall dare to make a stir, and say
we have oppress'd ye.

TROCAR.

March 2.

To the Editor of THE LANCET.

SIR,—I take the earliest opportunity of noticing two letters, under the signatures VERITAS and J. T., in THE LANCET of this day. My object, in the observations which have called forth the comments and corrections of these writers, was to expose the inconsistency of the College regulation in admitting certificates of anatomical studies from quarters in which the means of learning anatomy practically cannot be procured, and rejecting them when proceeding from private teachers in London, who can afford their pupils an ample supply of the necessary materials. I must observe, that my remarks included Edinburgh, as well as Glasgow and Aberdeen, although it is not so reported. I have often heard students mention the impossibility of procuring subjects for private dissection in Edinburgh, and the difficulty of getting what are necessary even for the illustration of lectures. I had supposed, and the two letters seem to admit, that these difficulties still exist. We know, however, that they have not prevented the successful cultivation of anatomical science. The fame so justly earned in this department by Monro, J. Thomson, J. and C. Bell, Barclay, Gordon, Wardrop, Knox, and others, shows that superior minds, instead of being discouraged by obstacles, are animated to more powerful exertion: they make opportunities for themselves, if they do not find them. Respecting the capabilities of Aberdeen, as a school of anatomy, always understanding by that expression a place where anatomy is to be learned by dissection, I am in complete ignorance, and can only observe, that I have known no one who has dissected there. I am well aware that its hospital contains such a number and description of surgical cases, as to render it not only a sufficient, but very valuable school of surgery; not more valuable, however, than those of Leeds, Birmingham, Norwich, Exeter, &c. &c. I have great pleasure in finding that my representation was incorrect, so far as Glasgow is concerned, and in learning that that University is not less fortunate in possessing the means of practical anatomical study than in the talents and reputation of its able anatomical teachers. I can assure your Correspondents that I do not yield to them in respect for the names of J. and A. Burns, of Jeffray, Pattison, Mackenzie, and Monteath.

Nothing could have been further from my thoughts than the design of elevating the London anatomical schools at the

expense of their Northern rivals. The ability and usefulness of a teacher may be well estimated by the zeal and industry of his pupils. Extensive intercourse with professional students from all quarters has taught me, that in the valuable qualities I have just mentioned those from the Scotch schools cannot be surpassed, and in general are not equalled. I find them invariably assiduous, well informed, and anxious to improve every opportunity of gaining information.—Neither does the important fact escape my recollection, that the only school in which the *science* of anatomy, as distinguished from the *trade* of teaching it, has been successfully cultivated in London, was established and has been almost entirely upheld by Scotchmen. It is hardly necessary to particularise that founded by Wm. Hunter, and rendered doubly celebrated by his brother. The fame of this school, to which we owe Hewson, Cruikshank, Baillie, and Wilson, is still worthily upheld by its present distinguished head.

I remain, Sir,
Your obedient servant,

18, Whitehall-place, March 18, 1826. W. LAWRENCE.

To the Editor of THE LANCET.

"Grammatice est ars, necessaria pueris, jucunda senibus, dulcis secretorum comes, et quæ vel sola omni studiorum genere plus habet operis quam ostentationis."—QUINTILIAN.

MR. EDITOR,—It has often been remarked, that the sons of Æsculapius seldom agree, that they are extremely diverse and mutable in their opinions, and that the fane of an anemoscope varies less, and is more stable than they. But this disagreement among the doctors *inter se*, I think is not altogether to be lamented; it gives rise to controversy, which *sometimes* elicits truth. It is profitable for diversion, for the printers, for the paper manufacturers, *pro foco et joco*, and the chandler's shop; yea, more, though last not least, it advantageth the critic. How long will the world be blind to its own interest, and intolerantly demand accordance? Will it still persecute with more than Neronian cruelty, and Caligulæan folly, her who (did it but know the day of its visitation) is the supporter of its jollity, vivacity and good humour? What gives zest to our conversation? What excites our laughter and mirth, our satire, and the poignancy of wit? Reader! thou wouldst, from a *coup d'œil* at the subject, perhaps, condemn me of insanity, of uttering a paradox, were I to assert that discord causes all these things; yet I do assert it. Why it is so, either rack thine own brains and find out, or follow me, and I will show you what marvels she can compass.

Unjust was the sentence decreed by Jove against this goddess; far from being the daughter of Nox, sister to the Parcæ and Death, she is the vivacious offspring of Dies, the gay sister to Uncertainty and Life. As soon might stern Camillus have balanced Rome on the point of a needle, as have made the love and worship of Concordia universal. When driven from the celestial abode of the gods, she long wandered through the world unable to find where to rest her foot, till being at last petitioned by the discordant worshippers of the deified Æsculapius, she yielded to their solicitations, on condition that they would erect a temple to her honour, to which they unanimously agreed, (which unanimity amounts merely to an agreement to differ,) and she has for ages presided over their public councils, their private consultations and individual opinions.

Thus much have I presumed, Mr. Editor, by way of preface, or by whatever term else you may designate it. I would now to the point: When I first imbibed what was *then* considered grammatical truth, under the vigilant direction and admirable tuition of the renowned Dr. Birch, I was taught that words in sentences have a twofold relation to one another, namely, that of concord and agreement; and that of government or influence; that the general principles of grammar were the same in all languages; that words by apposition were put in the same case, &c. But alas! when I thought I had made some little progress in the Latin language, I find that that veritable Dr. Birch has instilled false principles into my abused brains, and has made me as great a fool as himself. "Grammatice est ars, necessaria pueris, jucunda senibus." Alas! I now find that it is an ars necessaria mihi; I did hope that I might have said it is an ars jucundissima mihi, but no high authority bids me in obeisance bow my head and go to school again. But now, Mr. Editor, as I before observed, let us to the point. One day, not knowing how else to employ myself, (being sometimes subject to a fit of idleness, as which of us is not,) I set to and began to arrange a posse of old books, heaped up in chaotic confusion in a solitary and neglected corner of my study; I opened them successively, read their title pages, mechanically closed and dusted them, and finally deposited them in regular phalanx on the shelf appropriated

to their reception. I had not done this more than a quarter of an hour, when my attention was suddenly and immovably rivetted on a little book of very respectable appearance, whose leaves were of snowy hue, and its covers decorated with exquisite art. I turned it over and over again in astonishment and admiration, wondering how, in the name of fortune, such a pretty and so fair a thing could come among such rascally society as I found it. The elegance of the type, the beauty of the paper, its capacious margin, and, in fact, its *tout ensemble*, did infinite credit to the arts, and I consequently inferred that there must be invaluable matter preserved within such beautiful adornments, and that the ideas (of which I did not doubt but that there was a great number) it contained were destined to be transmitted to the latest posterity. "No longer shalt thou here remain, fair specimen of the arts that adorned thee," said I, "claim henceforth precedence among the fairest and choicest of my books; rest here, my fair one, I will confer with thee anon." My task being completed, I resumed the book, when, upon opening it, and turning to its title page, over which I glanced my eyes, and read as follows: "A compendious and easy grammar of the Latin language, on original principles, deduced from high authority, designed to facilitate medical students in the study and speedy and perfect acquisition of that useful and highly expressive tongue; the examples for the exemplification of the rules are taken from the first authorities. The *first* edition, by a Society of original Medical Geniuses of the United Kingdom. 'Omnia jam fiunt nova.'" My curiosity was intensely excited; I determined on as speedy an investigation of its contents as possible, the result of which, Mr. Editor, I now forward to you.

And now, reader, I am about to redeem my pledge with thee; "egli è molto utile lo studiar le lingue," it is my delight, and so it appears, from the profound philological remarks one meets with, in the little work under consideration, to have been that of the associated composers of this truly original production. They commence with the sweeping declaration, that "all principles of grammar broached from the earliest to the latest treatise on that branch of science, are all equally erroneous, and equally unworthy the regard of enlightened men—that those they fearlessly venture to send forth to public scrutiny, are alone the true—alone deserving of implicit credence." Lector, utere tuo judicio, tis thy birthright, and mine, let us not forego it in the present instance; so much for their preface, now let us to the principles themselves.

Having divided syntax into discord and government, the former of which they subdivide into 1, the disagreement of a substantive from a substantive; 2, of an adjective from a substantive; 3, of a verb from its nominative; they go on to observe, page 6, Rule 2, de discordia, "that adjectives and participles differ from their substantives in gender, number, and case, as, 'pilula sumen*dus*,' 'mistura repe*tandus*,' 'dua cochlearia,' 'pilulæ duo,'" Proceeding onward, a short space, we find, p. 9, de regimine, Rule 1, the following profound axiom: "One noun controls another in the dative case, as, pilula opio; unguentum hydrargyro; ceratum plumbo." My faith! thought I, when I had proceeded thus far, what profound philologicians! I have indeed, been mistaught, misled, and completely fooled by that non compos, Dr. Birch! Convinced that comparative dissection is a most excellent means of acquiring accuracy in medical science, especially when we discover either a *remarkable* similarity or dissimilarity from what we have been wont to believe, I thought that if I, in like manner, compared this astonishing production with that book I had always been taught to respect as the standard of grammatical truth, my mind would be much advantaged, and better initiated in that truth than were I to run cursorily through it; I, therefore, determined closely to examine it, and though assuredly I have felt myself much mortified, I hope the result hath been put to my better account. Do not be alarmed, and think I am about to transcribe the book itself; no, I will only give you such extracts as shall present to your readers its spirit, and by bringing it into notice, rescue it from the unmerited neglect it has so long experienced, and above all, render science an incalculable benefit. Well, then, my readers, follow me to p. 116, de verborum regimine, and let us see what the "society" says with respect to verbs governing the dative, "It hath been said, that any verbs may govern the dative in Latin, which have the signs *to* or *for*, after them in English;" but this is a grammatical absurdity, altogether incompatible with the modern principles of universal grammar, for so far are they from doing so, that they not only do not govern the dative, but are even not required to govern any particular case, they may govern all indiscriminately, or be placed absolutely, the noun being controlled by some preposition expressed or understood, as, "lotio ad cru*ris* applicetur," "pone aure dextr*a* applicetur,"

"pars affecta applicetur." Again, de prepositionum constructione, page 190, the following remarks occur: "The absurd opinions held by grammarians from the time of the indefatigable Roman rhetorician Quintilian, down to the contemporaries of our own day, concerning the construction of prepositions are, we think, too preposterous to merit *our* confutation, suffice it to say, that their arrangement is mere confusion, and the cases over which they are said to exert a specific influence altogether incorrect; for instead of the preposition *ad* governing exclusively the accusative, it governs the genitive, the dative, and the ablative; concerning the rest of the prepositions, we would say, ab uno exemplo disce omnia; or see the examples, a few of which I have extracted for the information of my readers; "ad pede," "ad cruris," "pone aure dextro," "sine nummi," "ad abscessus," "pro cruris!" "cum causticum," "cum lintei," "ad brachiæ," "pone auris," "pro odontalgiæ," "cum causticus," "post liquidus," "adversum sterno." I will present my readers with one rule more, the exemplification of which is so felicitous, and so happily conceived, that to pass it over, would be injustice to the "society," and a serious loss to them. "Time, who is always on the wing and tarries for none—against whom nothing can prevail, and before whom all things are as chaff, hath been heretofore egregiously trifled with. Is it not absurd to endeavour to make stationary that, which never yet stopped, nor ever will, so long as it shall exist?" "tempus cito fugit," says a learned author, and how true! Shall we then assign to him one spot when spoken of, and shall we fix him? It cannot be, wherefore it is more natural to let him have free course among the genders, numbers and cases of nouns, than to appropriate to him any particular case, as some have done, absurdly enough; therefore, we would say, "tres diebus," "horas duabus," "pro nocte," "paucos horas."

And now, reader, I have brought thee to a pass—I leave thee here—consider, if indeed consideration it require, whether I was insanus animi, when I asserted that discord excites our laughter and mirth, our satire, and all the rest of it. Of the merits of this singular little work, compared with those of other authors, I would just observe, "palmam qui meruit ferat." Craving your pardon, Mr. Editor, for so long detaining you, permit me now to withdraw, and subscribe myself,

Your humble servant,

PHILOGRAMMATIKES.

HOSPITAL REPORTS.

GUY'S HOSPITAL.

Gangrene of the Foot, following exposure to cold.

Thomas Gribble, a spare young man, of temperate habits, was admitted into this hospital on the eighth of February, under the care of Mr. Morgan. He states, that he had been afflicted with chilblains the greater part of the winter season, and that, eventually, he became confined to his bed, a week previous to his admission. When he came in, two large sloughs occupied the upper part of the foot, around which were large flakes of cuticle, recently detached. The foot and leg, as high as the knee, were hot and painful to the touch; they were also of a deep red, and in some parts of a purple colour and in a high state of turgescence. The following medicines were ordered:—extract of opium, 1 grain; decoction of cinchona ʒiss; tincture of the same ʒss, three times a-day; and the spirit wash to be applied to the leg.

11. Continue the mixture of bark with the addition of a small quantity of diluted sulphuric acid. The inflammation in the leg, considerably abated; apply the nitric acid lotion and linseed-meal poultices to the sloughing ulcer.

12. Has wine allowed, which he does not seem to relish.

13. Loss of appetite; tongue dry and red at the tip, and the papillæ are elevated; motions natural; pulse 25, rather full; occasional pain in the leg; thigh very hot last night; erysipelatous inflammation occupying the outer part of it as high as the hip joint; sloughs beginning to separate; spirit wash to the inflamed parts.

14. No change in the constitutional symptoms; sloughing going on favourably; the erysipelatous inflammation has proceeded to the loins.

15. Diarrhœa; one grain of the sulphate of quinine, and one ounce and a half of the following mixture to be taken three times a day:

℞ *Pulveris cretæ compositi cum pico drachmas tres;*
Julepi menthæ fluiduncias novem.
M. *fiat mist.*

16. Sloughs are completely removed, and the surfaces of the sores are granulating. Tongue dry and red; appetite continues imperfect; did not sleep quite

so well last night; pulse 100, and small; countenance rather anxious.

18. The ulcers look worse, and the discharge has increased, emitting a fœtid odour; the linseed poultice to be continued. One grain of the extract of opium every night.

19. The inflammation has spread over the abdomen in the form of an eruption, somewhat resembling measles, and has affected the fore-arm of the left upper extremity in a similar way; no pain in the sores, but the discharge is copious and highly offensive. He talks incoherently in the night; pulse 120; tongue dry, red, and cracked, but not furred; emaciation. The spirit-wash to be continued to the inflamed parts, and the following julep to be taken every four hours.

℞ *Liq. ammon. subcarbonatis fluid.* ℔ss.
Julepi menthæ comp. (*P. G.*) *fluidunc.* ix.
Misce dosis, ʒiis.

20. The inflammation covering the abdomen and left arm is considerably abated; but the upper part of the thigh has become of a deep red or purple colour; pulse 91; tongue moist, but clammy and fissured.

21. Slept more soundly last night; discourses sensibly; complains of a troublesome cough and sore throat; appetite still deficient; tongue foul and moist, and papillæ much elevated; pulse 109; the skin about the hip of a deep purple hue; discharge from the sores increased, with streaks of dark coloured blood in it. Eight ounces of wine allowed every day.

22. No sleep last night; countenance sunk; mind perfect; large quantity of bloody pus from the sores, which is also derived from between the muscles and integuments on the back of the leg; continue the poultice. Tongue has again become dry and cracked; no appearance of inflammation in any part, except about the hip; cough is very troublesome. Ordered to take ten grains of Dover's powder every night, and a mixture of the infusion of cascarilla, ℥j.; subcarb. of potash, ℈j.; lemon juice, ʒss.

23. Pulse 113; great thirst; countenance cheerful; converses in a rational manner; tenderness about the trochanter major on pressure, the skin assuming a dark livid cast. A large quantity of blood is discharged from the sores.

24. To-day his countenance is much depressed; bowels torpid; pulse 120; great emaciation of the whole body; matter has formed between the integuments and muscles on the outer and back part of the leg, producing a complete separation of those parts. He raved much during the night, but has been more composed throughout the morning; still, however, wandering a little.

Opium, one grain,
Sulphate of quinine, three grains;

three times a day.

25. A large slough has formed opposite the fore part of the trochanter major, with separation of the integuments to a considerable extent from the subjacent parts. The discharge from the foot continues very copious and highly offensive, so that it is necessary to fumigate the ward. He now complains of great thirst; his voice is altered; countenance sunk and anxious; respiration much quicker than natural; pulse 126, and small; delirious. Six ounces of brandy every 24 hours.

26. He was so restless last night, it was necessary to bind him; his respirations are about 40 in a minute; pulse still very quick, and this morning he had hiccup; complains of pain shooting up the leg and thigh; on removing the poultice, the discharge is considerably diminished; the dorsum of the foot appears of a deep purple colour; several small sloughs have formed over the outer malleolus and joints of the toes; in addition to which, the whole of the leg and thigh, has a mottled appearance.

27. Moribund.

The following cases are examples of the return of Cancerous Disease after Operation.

Case 1.—Mrs. Delamere, aged 54, a woman of slender form, and sallow complexion, came into the hospital on the 21st January, having scirrhous disease of the right breast. About six months ago, as the patient was accidentally handling her breast, she perceived a small, but hard tumour, near the middle of the gland; it was not attended with any pain, and, from its small size, produced no inconvenience. Two months after this, she made application at the surgery, as an out-patient, when Mr. Callaway saw her, and strongly recommended the removal of the tumour, observing, "*that it was in a most favourable state for an operation.*" The patient declined coming into the hospital, but soon after consented to an operation at her own house, which was performed by her attending surgeon; the centre of the breast, including the nipple, being removed. Within the last three months, she has occasionally experienced pain in the breast, and an aching pain in the right arm and hand, which have become numb and swollen, added to which

she is at present incapable of flexing her fingers. There is a hardness around the cicatrix, and numerous enlarged miliary glands; slight ulceration has also taken place at the lower part of the breast, from which a thin, transparent fluid escaped; there is no glandular enlargement in the axilla. The health of the patient is considerably impaired, and for some time she has been troubled with a cough and difficulty of breathing.

She has had four children, and nursed them herself, the youngest of which she suckled 19 years since. the catamenia were suppressed at her 44th year. The treatment since her admision has been palliative. The extract of belladonna, in the form of plaster, has been applied to the breast, and ten grains of the extract of hyoscyamus, to be taken three times a-day. She left the hospital about a week since, in consequence of the surgeons considering her malady to be irremediable.

Cancer of the Lip.

Daniel Mahony, aged 41, a robust seaman, was admitted into Naaman's Ward, on the 8th of March, with cancerous disease of the lower lip. This affection, according to his statement, was the immediate result of a bruise he received on his lip in a fall, on the 10th of March 1825. The part thus injured quickly degenerated into a foul excavating ulcer, with ragged edges and a hardened circumference, attended now and then with lancinating pains. In this state he submitted to an operation last June, in which a large portion of the lower lip was removed, the wound afterwards uniting by adhesion. About three months from the removal of the diseased portion, the cicatrix and the parts surrounding it became hardened and inflamed, which was quickly followed by two ulcers; one on the top of the cicatrix, the other on the inner side of the lip, opposite the root of the right cuspid tooth, they are without granulations, excavated, and covered by a greyish lymph; their edges are irregular and slightly elevated, with hardened bases; the discharge is trifling, but the smell arising from the parts is of a very pungent nature; he also complains very much of severe darting pains. The absorbent glands below the horizontal plate of the lower jaw on the left side, and the glandulæ concatenatæ, beneath the maxillary angle on the right, are highly inflamed, hard, and very tender upon pressure, forming a tumour on each side of the neck about the size of a hen's egg. His face is swollen and painful, and his jaws are confined by the surrounding turgescence; the lower lip is very much contracted from the large portion removed in the operation. Mr. B. Cooper has ordered the following medicines, March 8th:

Carbonate of iron, two drachms,
Confection of orange peel, three ounces;
to be taken three times a day.

Oxymuriate of mercury, four grains,
Muriatic acid, twenty drops,
Lime water, eight ounces;
to be applied to the ulcerated surfaces.

March 18. The tumours have suppurated; fluctuation is remarkably distinct.

ST. BARTHOLOMEW'S HOSPITAL.

An interesting Case of Fungus Hæmatodes.

John Collins, a gardener, 27 years of age, was admitted into Pitcairn Ward, under the care of Mr. Abernethy, or rather under Mr. Earle, on the 30th of December, with a disease of the left knee. He stated, that about a month or six weeks ago, while at work, he struck his knee against the spade, which at the time did not inconvenience him much. In the course of a few days, however, he felt the knee a little uneasy, and as it continued to get more troublesome he applied to the Hospital and was taken in. At present there is a swelling of the joint, with the appearance of a tumour on the lower part of it, having a soft and spongy feel, situated rather by the side of the ligamentum patellæ. He does not complain of any particular pain in the joint, except at times, when a shooting pain is felt, nor are the constitutional symptoms severe. The parts were ordered to be poulticed, and some opening medicine was directed to be given him when requisite. After he had been in the house about ten days, the tumour had assumed a more prominent appearance, and Mr. Earle, in consequence, opened it, when a slight discharge of a bloody kind of matter took place. The parts healed over, and in about another week Mr. Earle's dresser again punctured it, when only a little dark blood escaped, and the orifice continued bleeding slowly for a short time afterwards; about half a teacupful of matter was discharged in all. On minutely examining the inside of this tumour, there appeared on its back part, and as if proceeding from the head of the tibia, a little elevated fungus. By the next day this had almost protruded through the aperture. This growth con-

tinued to increase gradually, and it had a dark-brown but soft feel; from it a little discharge of blood occasionally took place. Mr. Earle, from these circumstances, regarded it as a case of fungus hæmatodes, as did also Mr. Lawrence, who saw the man.

On examining the inguinal glands, they were found to be somewhat enlarged; the parts had become hot and painful at night-time for some days past. Just below the right lobe of the liver a hard unyielding knob is felt, as if it were a tumour; pressure on it, however, gives no pain.

Feb. 3.—The fungus now presents a round prominent projection, about three inches in length and one in breadth, discharging a bloody matter of a very fœtid odour. The man's constitution has become considerably impaired; his countenance is sallow and sunk; he has little sleep at night, and the appetite is nearly prostrate; the pulse is small and frequent.

6. The man is suffering excruciating pain, and his rest is entirely broken. Mr. Earle observed to the pupils to-day, that however expedient an operation might have appeared at first, yet from the failure of every case that had come under his notice, he had fully made up his mind never to amputate for this disease again, for such an operation was only calculated to bring disgrace on surgery and discredit on the operator. The parts are much swollen, and have a dark purple cast more immediately around the fungus. Battley's solution, diluted with water, is kept constantly applied over the parts. Hitherto he has only taken six grains of the compound ipecacuanha powder every six hours, but to-day Mr. Earle ordered thirty drops of Battley's to be taken at bed-time, and to be repeated, if necessary, until some effect should be induced.

12. The fungus continues to enlarge. Another tumour, having a soft and smooth feel, which occasions excruciating pain, has formed below the present growth. It was opened, and about a small teacupful of bloody matter was discharged. The limb is considerably swollen and excessively painful. The enlarged glands in the groin have considerably diminished, nor are there any others perceptible in any part of the body. He continues to have large doses of opium administered to him, to afford, if possible, temporary alleviation of his sufferings.

19. Large and frequent doses of opium have been regularly given him, and he now lies quite comatose from its influence. The fungus is now about the size of a large orange, apparently of a soft consistence and having a dark-brown appearance. The discharge from it and the ulcer below, which has also taken on the same diseased action, discharge a quantity of horribly offensive bloody matter; his features, as well as his whole frame, are exceedingly emaciated; he takes scarcely any food, and his pulse is very feeble and thready.

24. For the last three days the patient has appeared in a dying state. An immense mass of disease had broken through the muscles on the back of the leg, presenting altogether a most appalling sight, and a bloody discharge issues from it. He has regularly taken 100 drops of Battley's solution every night, as well as smaller doses through the day, until within the last two nights, since which time it has been discontinued.

He lingered on through the night, but died the following morning.

Inspectio Cadaveris.

Not the slightest morbid appearance was detectable in any part of the thorax, or abdominal viscera. The stomach, which was considerably distended, appeared to contain part of the opium which had been taken during life, but there was no disease observable in its structure. The liver, spleen, pancreas, and mysenteric glands, as well as the kidneys and large and small intestines, were examined with the most scrupulous attention, but all presented a most healthy appearance. Mr. Earle had the external iliac artery slit up, but no diseased appearance of its coats could be detected. The gall bladder was larger than ordinary, and very distended, and the inguinal glands only might be said to be slightly enlarged. These parts were examined first, which done, that of the diseased limb followed. It was discovered, that the disease had extended up the back part of the thigh, beneath the skin, as far as the ramus of the pubes and ischium, completely disorganizing the greater portion of the triceps muscle, secreting a horribly offensive purulent kind of matter, which lay in the whole track. On making a section of the fungus, it was found made up partly of small cells, or abscesses freely communicating with each other, containing a bloody kind of matter, and having membrane-like divisions running through it. But it had also in distinct parts a hard indurated feel, not usually met with in these cases. The whole of the posterior part of the leg was one mass of soft, putrid, dark, and disorganized matter, rendering any thing like a minute

description of it impossible. The knee joint was also implicated, and some of the dark purulent matter had insinuated itself into it. Different portions of the bone were separated transversely, as well as longitudinally. The head of the tibia was carious, and one portion of the cancellous structure had little hard points or tubercles (if we might be allowed the expression) between the cancelli. The upper portion of the divided femur was quite of a natural appearance. The protuberance felt in the right side of the abdomen, just below the liver, was found to be the right kidney, which protruded rather more in front than usual.

In accordance with the wish of the students, the surgeons have had the following plan carried into effect. A printed form of the following kind is pasted on a square piece of board, and fastened to the head of each patient's bed. In the different wards are books, ruled so as to correspond with the papers, in order that when the latter are filled up, a correct copy may be kept. Such a plan cannot but be attended with considerable advantage, and we therefore strongly recommend its adoption in other Hospitals. The young woman whose disease and treatment we have selected, is still in the Hospital, and has derived advantage from the plan of treatment adopted. On the 28th, when she was bled, great pain was complained of in the forehead.

MR. LAWRENCE.

DATE.	PHILLIS GOAT, ætat. 20. Chronic inflammation of the Eyes, with adhesions of the irides and cataract of the posterior lens of the right eye.	February 16. S. FREEMAN.
February 17	Diet, rice	Pil. hydr. gr. v. ter die. Solut. belladon. oculis. Cal. gr. iv. Pulv jalap, gr. xij. statim.
„ 20	- - -	Pergat in usu pil. hyd. Pil aloes c̄ myrrh, gr. x. o. n.
„ 27	- - -	Pergat.
„ 28	- - -	C. c. ab nuchâ ad ℥ xvj.
March 1	- - -	Hirudines, x. temporibus. Ext. belladon.
„ 3	- - -	Emp. lyttæ nuchæ.
„ 4	- - -	Mist. ammon. acetat. 4tis horis.

The name on the right hand space is the Dresser's; and on its left that of the Patient, with her age and nature of her malady.

As the medicines are discontinued, they are underlined.

Case of an extensive Injury of the Head, from falling against the hot bars of a grate.

Mary Alcock, 36 years of age, was received into this Institution, on the 30th of January, under the care of Mr. Vincent, in consequence of having an extensive injury on one side of the head. On inquiring how it happened, she stated that about two years since she was for the first time seized with a fit, which in a little time went off, but left her with the left side of her body paralytic, eventually this went off, and she regained the use of her limbs; she further stated it was a fit somewhat of a similar kind, which came on about three weeks ago while she was alone and sitting by the fire, which deprived her of her reason, and she supposes that it was while labouring under the aberration of her mind that she fell forwards against the grate, being found

in this situation when her husband returned.

For some time after the occurrence of the injury, no medical advice was obtained, as the husband thought it undeserving such attention; subsequently, however, a surgeon visited her, and he, after a few days' attendance, sent her to the Hospital. The extent of the injured parts at this time was of such an alarming magnitude, as almost to preclude a doubt of the case being sadly neglected at the onset. The whole of the right parietal bone, with a portion of the occipital, were in a great part without scalp, and what remained appeared to be dark, and quite deprived of vitality; along the postero-superior part of the parietal, and the corresponding portion of the occipital bone, the pericranium was entirely removed, and consequently the bone quite bare, and apparently dead, from the very white and bleached appearance which it presented. The circumference of this wound was bounded by a considerably indurated and granulating edge of scalp, of a very exuberant and florid description. For the whole of the parietal bone to be exposed, it was necessary the temporal muscle on this side should be removed, which was done as far as the lower part of the temporal fossa, where the sloughing process had stopped, and the muscle had retained its attachments to the contiguous parts, so that whenever her lower jaw was put in motion, these parts were drawn into action. From her own account, it appears she has been in perfect possession of her sensorial faculties since the first occurrence of the accident; and every one who witnessed her condition was struck with surprize at the apparent absence of all cerebral disorder.

For the first week after her admission, the parts were poulticed, and a grain of the sulphate of quinine was given every six hours, although no very great debility of the constitution was observable; but it was given rather for the purpose of sustaining the reparative process in the injured parts. It may be observed, however, that the woman complained of want of rest at night for some time past. Mr. Vincent considered the approximation of the soft parts might be assisted, if adhesive straps were employed for that purpose, and he in consequence requested the dresser to apply them, at the same time continuing the quinine. When the adhesive straps were first applied, which was on the 4th of February, the pulse was 90, soft, and small, and the bowels moderately open. She also expressed a slight inclination for food. After this plan had been persisted in for a short time, she complained of its producing pain and uneasiness in her head, and it was therefore discontinued, and the former plan was again had recourse to. She had now been in the house a month, but no symptoms of cerebral derangement were observable. Her answers were given in a relevant manner, and she did not complain of feeling any particular pain in the head; the only circumstance which she appeared to complain of was, the want of sleep at night. It was in consequence of this continued watchfulness, that on the 1st of March Mr. Vincent ordered her to have a grain of opium every night at bed time. It may be observed, that for some days past a melancholy and dejected cast had pervaded her countenance, and the little inclination which she previously evinced for taking food had completely left her. The condition of the wound likewise presented an unfavourable change. That portion of the bone which was deprived of its pericranium had gradually changed its aspect from an ash colour to that of a dark hue, and the granulations were less florid and shrunk. Pulse small, and the bowels open.

3. The opium has been regularly administered, but without producing any effect. Mr. Vincent directed it to be increased in quantity to one grain and a half. Since yesterday, she appears more indifferent to surrounding objects than before, and a vacancy of expression, not before observable, is suffused throughout her countenance. The quinine has been discontinued.

4. Last evening, the nurse reports she had a fit, which lasted for some time; previously to its coming on, the patient describes herself as having felt a kind of tremulous motion in her limbs. On the subsidence of the fit, hemiplegia was discovered to have occurred on the opposite half of the body, that is to say, on the left side.

6. The portion of bone which was dark has now become quite black, being separated from the living bone by a superficial fissure, and around the edges a very marked increased degree of vascularity is observable, so that this portion of the outer table of the skull is completely isolated. The soft parts are now in a very sloughing and ill-conditioned state. The cerebral affection is rather increased, and she appears to have a difficulty of articulation. The opium discontinued.

8. Her power of articulation is less than yesterday, and it is with very great difficulty we can comprehend her meaning.

10. To-day Mr. Vincent, supposing matter might be lodged in the diploë, or

beneath the internal table of the skull, trephined the dead portion of bone in two places, when a small quantity of purulent matter escaped, which was found to be lodged within the cranium.

11. She died this morning.

On inspecting the body, the necrosis alluded to in the report was found to extend to the inner table of the skull, but to a much less extent, neither had this portion of the bone the dark colour which the outer table presented, all around this dead part of the bone a highly vascular condition of the contiguous bone was apparent. The dura mater corresponding to the diseased bone was quite disorganized from ulceration, and the remaining portion of the membrane, as well as the other membranes, presented a highly vascular appearance. Nearly the whole of the right hemisphere of the cerebrum was equally diseased, its more central part being quite disorganized, and containing a sero-purulent fluid within two cysts; into the lateral ventricle of this side some of this matter had escaped. The opposite hemisphere presented no very remarkable appearance. The abdominal viscera were in a natural state.

Case of very extensive Phagedenic Ulceration.

Wm. Hanessey, a blacksmith, 23 years of age, was received into the foul ward of this Institution, under the care of Mr. Vincent, on the 3d of November, with a sore on the left groin. He reports that thirteen weeks since he had a sore on his penis followed by a bubo, which had subsequently suppurated, but had never healed, and had since degenerated into the present ulcer. The man further stated that he had been under the care of some "Monsieur le docteur" in St. Giles's, who had cured his chancre by giving him pills which he supposes were mercurial, as they made his mouth very sore. The appearance of the ulcer was of a phagedenic character, and about the size of a crown piece; it was very deep, having a dark foul surface with ragged edges, and accompanied with a slight livid cutaneous blush around its circumference. Mr. Vincent directed the edges of the sore to be touched with the concentrated nitric acid, fearing if it were applied to its whole surface, from its proximity to the iliac vessels, that the sloughing might extend to them and thus endanger serious hæmorrhage. Five grains of blue pill were also ordered to be taken each alternate night. Milk diet.

5. Notwithstanding the application of the acid the sore is spreading, and its character remains unaltered. The patient complains of want of rest, which he attributes to the irritation of the ulcer. Ordered to discontinue the former pills, and to take five grains of the ext. of hyoscyamus three times a day, and to keep the following lotion applied to the part, and renewed twice a day:

Tinct. of opium, half an ounce,
Water, half a pint.

9. The dark foul surface or slough as it now appears, still remains, and the sloughing process has extended considerably, being triple its original size. The pulse is small and frequent, 120, and the tongue slightly loaded; bowels very open and loose. The nitric acid wash was ordered to be substituted for the former application, and to take the following draught three times a day:

Camphor mixture, one ounce and a half,
Subcarbonate of ammonia five grains,
Aromatic confection, ten grains.

12. Diarrhœa much relieved, and the constitutional symptoms are for the better.

15. The ulcer has resisted all the measures heretofore had recourse to, and its character and appearance are to-day as bad as when he first came in. It continues rapidly spreading, and now occupies nearly the whole of the left inguinal region. The constitution is equally participating; the pulse continues very frequent, and the strength is greatly reduced. Mr. Vincent, fearing the air of the foul ward might have a prejudicial influence on the man, directed him to be removed into a private ward. The yeast poultice was ordered to be kept applied, and renewed twice in 24 hours, instead of the nitric acid wash, and to substitute the following draught twice a day, in the place of the foregoing one:

Infusion of cascarilla, one ounce and a half,
Compound tincture of cardamoms, one drachm.

Broth diet, with a pint of milk daily.

17. The deep dark slough which occupies the centre of the wound has become within this day or two looser, and its edges have partially separated. The general appearance of the sore, as well as the surrounding parts remains unaltered, and in extent it has greatly enlarged. Bowels open; pulse 100, moderately firm. Mr. Vincent directed him to have three broiled mutton chops a day, and to take five grains of the hydrargyrus c. creta every night.

[To be continued.]

ST. GEORGE'S HOSPITAL.

Case of Fracture and Depression of the Cranium and Cervical Vertebræ.

Richard Owen, æt. 17, was brought into the Hospital March 7, at 5 o'clock, p.m., and placed under the care of Mr. Rose, with a wound of the scalp and paralysis of the upper and lower extremities, occasioned by being thrown off a horse, and afterwards kicked by the same animal, about 11 o'clock, a.m., all of which he perfectly recollects, but substitutes yesterday morning for this morning, as the time when the accident happened, his pupils are small and contracted, and not acted upon by the stimulus of a strong light; his pulse is slow and feeble, but regular; has no sickness; respiration is free and easy, without the slightest stertor. Although the extremities are totally paralysed and insensible to the strongest impressions, he retains his senses perfectly, the organs of hearing are not affected; retains the faculty of speech, and every organ about the upper part of the neck and face seems to perform its natural function, and not to be in the least impaired, except the permanent contraction of the pupils.

On the wound being examined, there was extensive separation of the pericranium, from the left parietal bone, with fracture and depression, about the size of a shilling, midway betwen the anterior and inferior angles of the same bone; the fracture was almost close to the coronal suture, which was partially separated. The patient was ordered to be kept strictly on the antiphlogistic regimen.

8. This morning the pulse having become a little firmer, he was bled; the blood did not show any appearances of inflammation. At 12 o'clock, Mr. Rose, finding his patient in the same state as yesterday, resolved to remove the depressed portion of bone with the trephine. The trephine was accordingly applied between the sagittal sutnre and the fracture; the inner margin of the trephine, within one-fourth of an inch from the fracture; in sawing through the bone it appeared that double the portion of the inner table was depressed to that of the outer, so that it could not be elevated without the further use of the trephine, it was again applied to two different places round the fracture, at equal distances, and the angles of bone between these perforations were set free by the application of one of Hey's saws: this enabled Mr. Rose to remove the depressed portion of bone with care, but its removal relieved none of the symptoms the patient laboured under.

Thus finding the remainder of the parietal bone, between this —— hiatus and the sagittal suture, a little depressed, one of Hey's saws was again applied in an oblique direction backwards, from the aforesaid hiatus to the sagittal suture; the sutures being separated, this portion of bone was easily removed, under which there was a small coagulum; after the removal of this coagulum, Mr. Rose thought that there was more action in the pupils, but this change was quite imperceptible to us. The paralysis was not in the least relieved after the removal of the last two thirds of the parietal bone and the coagulum. Mr. Rose, suspecting some mischief from the middle artery of the right side, cut through the scalp as far as the attollens auris, the coronal suture was found so extensively separated, as to leave room enough for the escape of any quantity of blood that might be effused from the middle artery; from this a further operation was thought unnecessary, and it was resolved to wait the result of what had already been done. At two the next morning the patient died.

Inspectio cadaveris.

The calvareum being removed, there was nothing unatural seen on the surface of the dura mater; the brain was minutely examined, but there was nothing discovered to expound any of the pre-existing symptoms; after the brain was removed from the skull a fracture was discovered, extending in the base of the skull on the right side as far as the sella turcica, finding nothing in the substance or on the onter surface of the brain to account for the paralysis, it was conjectured that some blood passed to the base of the cranium and pressed on the medulla spinalis; but rather than rest on conjecture, it was proposed that the spine should be examined: the subject was turned on its belly, and the integuments and muscles being cut through on the cervical vertebræ, the mystery was unravelled on finding fracture of the second, third, and fourth spinous processes and bodies of the vertebræ, and the spinal marrow compressed into a dark massive pulp.

It may appear curious that respiration was not affected, since the fracture extended above the origin of the phrenic nerve. Mr. Brodie remarks that there might have been a small filament of communication from above the fracture to the phrenic nerve, and that the smallest filament immaginable was able to convey a sufficient quantity of nervous influence to perform the functions of respiration.